

STANDARDS DEVELOPMENT BRANCH OMOE



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## **Drinking Water Surveillance Program**

# **WALLACEBURG WATER TREATMENT PLANT**

**Annual Report 1988**

**TD  
380  
.W35  
1990  
MOE**



Ontario

**Environment  
Environnement**

Jim Bradley, Minister/ministre

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**TD  
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Wallaceburg water treatment  
plant : annual report 1988.

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WALLACEBURG  
WATER TREATMENT PLANT

DRINKING WATER SURVEILLANCE  
PROGRAM

ANNUAL REPORT 1988

FEBRUARY 1990



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## EXECUTIVE SUMMARY

### DRINKING WATER SURVEILLANCE PROGRAM

#### WALLACEBURG WATER TREATMENT PLANT 1988 ANNUAL REPORT

The Drinking Water Surveillance Program (DWSP) for Ontario is a monitoring program providing immediate, reliable, current information on drinking water quality. The DWSP officially began in April 1986 and is designed to eventually include all municipal supplies in Ontario. Currently, 52 plants are being monitored.

The Wallaceburg Water Treatment Plant is a conventional treatment plant that treats water from the St. Clair River via the Chenal Ecarte. The treatment process consists of coagulation, flocculation, filtration, disinfection and fluoridation. This plant has a design capacity of  $13.5 \times 1000 \text{ m}^3/\text{day}$  and serves a population of 11,300.

Water samples from the raw, treated and two distribution sites were analyzed for approximately 160 parameters, 15 times during 1988. Parameters were divided into the following groups Bacteriological, Inorganic and Physical (Laboratory Chemistry, Field Chemistry and Metals) and Organics (Chloroaromatics, Chlorophenols, Pesticides and PCB, Phenolics, Polynuclear Aromatic Hydrocarbons, Specific Pesticides and Volatiles). Specific Pesticides and Chlorophenols were analysed in June and November only.

A summary of results is shown in Table 1.

Inorganic and Physical parameters (Laboratory Chemistry, Field Chemistry and Metals) were below any applicable health related ODWOS.

Of approximately 110 Organic parameters tested for on a monthly basis, none exceeded health related guidelines.

During 1988 the DWSP sampling results indicated that the Wallaceburg Water Treatment Plant produced good quality water at the plant and this quality was maintained in the distribution system.

TABLE 1

## DRINKING WATER SURVEILLANCE PROGRAM WALLACEBURG WTP

## SUMMARY TABLE BY SCAN

SCAN	RAW			TREATED			SITE 1			SITE 2		
	TESTS	POSITIVE	%POSITIVE	TESTS	POSITIVE	%POSITIVE	TESTS	POSITIVE	%POSITIVE	TESTS	POSITIVE	%POSITIVE
BACTERIOLOGICAL	46	44	95	53	6	11	33	8	24	41	7	17
CHEMISTRY (FLD)	45	45	100	90	90	100	114	114	100	117	117	100
CHEMISTRY (LAB)	306	244	79	298	198	66	346	283	81	348	272	78
METALS	360	183	50	360	142	39	470	237	50	470	227	48
CHLOROAROMATICS	196	0	0	196	0	0	140	0	0	140	0	0
CHLOROPHENOLS	12	0	0	12	0	0	.	.	.	.	.	.
PAH	238	0	0	238	0	0	.	.	.	.	.	.
PESTICIDES & PCB	475	0	0	475	0	0	330	0	0	330	0	0
PHENOLICS	15	3	20	14	2	14	.	.	.	.	.	.
SPECIFIC PESTICIDES	56	0	0	56	0	0	0	0	0	0	0	0
VOLATILES	401	2	0	402	61	15	259	40	15	288	45	15
TOTAL	2150	521		2194	499		1692	682		1734	668	

NO HEALTH RELATED GUIDELINES WERE EXCEEDED

A POSITIVE VALUE DENOTES THAT THE RESULT IS GREATER THAN THE STATISTICAL LIMIT OF DETECTION AND IS QUANTIFIABLE  
 A '.' INDICATES THAT NO SAMPLE WAS TAKEN

**DRINKING WATER SURVEILLANCE PROGRAM**  
**WALLACEBURG WATER TREATMENT PLANT**  
**1988 ANNUAL REPORT**

**INTRODUCTION**

The Drinking Water Surveillance Program (DWSP) for Ontario is a monitoring program providing immediate, reliable, current information on drinking water quality. The DWSP officially began in April 1986 and is designed to eventually include all municipal supplies in Ontario. Currently, 52 plants are being monitored.

The DWSP was initiated at the Wallaceburg Water Treatment Plant in May 1986. Annual reports were published for 1986 (ISBN 0-7729-2567-4) and 1987 (ISSN 0839-9018).

This report contains information and results for 1988.

**PLANT DESCRIPTION**

The Wallaceburg Water Treatment Plant is a conventional treatment plant that treats water from the St. Clair River via the Chenal Ecarte. The process consists of coagulation, flocculation, filtration, disinfection and fluoridation. Sodium Chlorite and chlorine are used to generate chlorine dioxide for the post-chlorination process. Powdered activated carbon adsorption is added

for taste and odour control. This plant has a design capacity of  $13.5 \times 1000 \text{ m}^3/\text{day}$  and flows on day of sampling ranging from  $9 \times 1000 \text{ m}^3/\text{day}$  to  $11 \times 1000 \text{ m}^3/\text{day}$ . It serves a population of 11,300. The plant also provides water for a major cannery.

The plant location is shown in Figure 1. Plant Process details, in a block schematic, are shown in Figure 2. General plant information is presented in Table 2.

## METHODS

Water samples were obtained from four DWSP approved locations;

- i) Plant Raw - The water originated from the lowlift discharge prior to chlorination and was sampled through a copper line. The sample tap is in the lowlift pumping station located 1 kilometer from the plant.
- ii) Plant Treated - The water originated from the highlift discharge after addition of all treatment chemicals and was sampled through a copper line. The sample tap is located in the plant.
- iii) Distribution System - Site 1 - This house is approximately 5.4 kilometers from the plant. Water was sampled through copper plumbing from the basement laundry tap.
- iv) Distribution System - Site 2 - This house is approximately

# FIGURE 1

DRINKING WATER SURVEILLANCE PROGRAM

SITE LOCATION MAP

WALLACEBURG WATER TREATMENT PLANT



FIGURE 2

# WALLACEBURG WATER TREATMENT PLANT SCHEMATIC

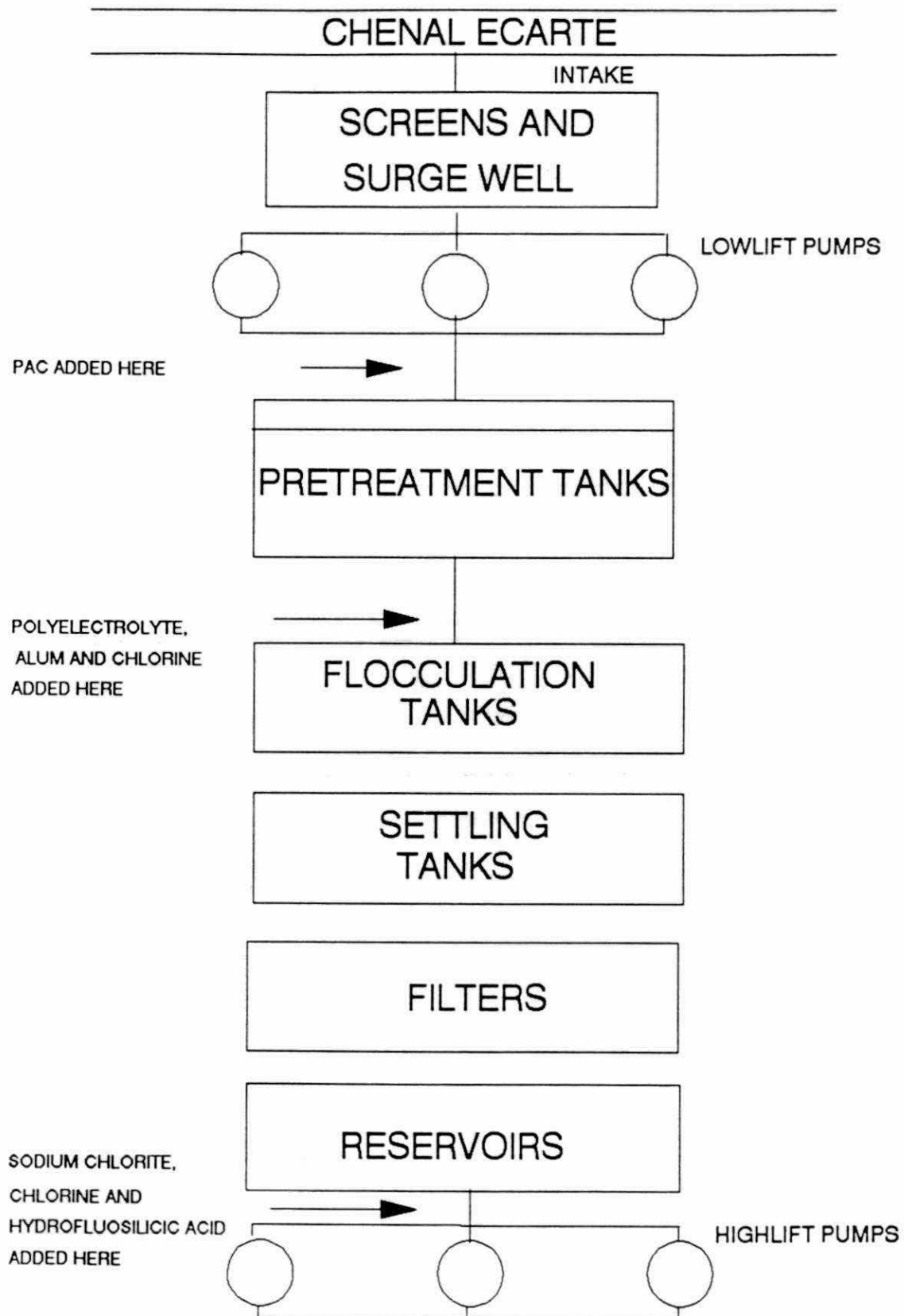


TABLE 2

DRINKING WATER SURVEILLANCE PROGRAM ANNUAL REPORT

GENERAL INFORMATION

WALLACEBURG WATER SUPPLY SYSTEM

LOCATION: 152 DUNCAN STREET  
WALLACEBURG, ONTARIO  
N8A 4E2  
(519-627-2277)

SOURCE: RAW WATER SOURCE - ST CLAIR RIVER  
VIA THE CHENAL ECARTE

DESIGN CAPACITY: 13.5 (1000 M<sup>3</sup>/DAY)

OPERATION: MUNICIPALITY

GENERAL MANAGER: L. DENYS

MINISTRY REGION: SOUTHWESTERN

DISTRICT OFFICER: M. LOOBY

<u>MUNICIPALITY SERVED</u>	<u>POPULATION</u>
WALLACEBURG	11,300

2.9 kilometers from the plant. Water was sampled through copper plumbing from the basement laundry tap.

Sample lines in the plant were flushed prior to sampling to ensure that the water obtained was indicative of its origin and not residual water standing in the sample line.

At both distribution system locations two types of samples were obtained: a standing and a free flow. The standing sample consisted of water that had been in the household plumbing and service connection for a minimum of six hours. These samples are used to make an assessment of the amount by which the levels of inorganic compounds and metals may be changed on standing due to leaching from ( or deposition on ) the plumbing system. The only analyses carried out on the standing samples therefore, are General Chemistry and Metals. The free flow sample represented fresh water from the distribution main that had been flowing at the sample tap for five minutes before being sampled.

Attempts were made to capture the same block of water at each sampling point by taking the retention time into consideration. The retention time was calculated by dividing the volume of water between the two sampling points by the sample day flow. For example, if it was determined that the retention time within the



plant was five hours then there would be a five hour interval between the raw and treated sampling. Similarly if it was estimated that it took approximately one day for the water to travel from the plant to the distribution system site, this site would be sampled one day after the treated water from the plant.

Stringent DWSP sampling protocols were followed to ensure that all samples were taken in the same manner.

Sample day flow, treatment chemical dosages and Field Chemistry measurements were recorded on the day of sampling and were entered on the DWSP database as submitted.

## RESULTS

Water at the Wallaceburg Water Treatment Plant was usually sampled on a monthly basis and analysed for approximately 160 parameters. In response to spills upstream from the plant and as background for dioxin sampling extra samples were taken in June, November and December. The Specific Pesticides and Chlorophenols scans were sampled in June and November only. Polynuclear Aromatic Hydrocarbons and Phenolics were only analysed in the raw and treated water at the plant. As a result of an unforeseen emergency the laboratory capacity was exceeded and analysis for volatiles could not be carried out when the samples were received. Since analysis for volatiles is no longer valid after four weeks of

storage, volatile results for February are not available.

Table 3 contains information on the sample day retention time, flow rate and treatment chemicals used and their associated dosages.

Table 4 is a summary break-down of the number of water samples analysed by parameter and by water type. The number of times that a positive or trace result was detected is also reported.

Positive denotes that the result is greater than the statistical limit of detection established by the Ministry of the Environment (MOE) laboratory staff and is quantifiable. Trace (<T) denotes that the level measured is greater than the lowest value detectable by the method but lies so close to the detection limit that it cannot be confidently quantified.

Table 5 presents the results for parameters detected on at least one occasion.

Table 6 lists all parameters analysed on DWSP.

Associated guidelines and detection limits are also supplied on tables 5 and 6. Parameters are listed alphabetically within each scan.

## DISCUSSION

### General

Water quality is judged by comparison with the Ontario Drinking Water Objectives (ODWOs) as defined in the 1984 publication (ISBN 0-7743-8985-0). The Province of Ontario has health related and aesthetic objectives for 49 parameters, these are currently under review. When an ODWO is not available guidelines/limits from other agencies are consulted. The Parameters Listing System (PALIS) recently published (ISBN 0-7729-4461-X) by the MOE catalogues and keeps current over 1750 guidelines for 650 parameters from agencies throughout the world.

Although some of the parameters measured on DWSP may be present in the raw and treated water as a result of pollution, many of the compounds detected are naturally occurring or are treatment by-products.

The DWSP does not analyse for Taste and Odour or other biological water quality parameters, and can therefore not assess these aspects of the water supply.

As stated under Results, traces do not indicate quantifiable values, as defined by established MOE Laboratory analytical reporting protocols. The occasional finding of a trace level of a contaminant is thus not considered to be significant. They can be

useful in trend analysis or confirmation of a specific contaminant that is repeatedly detected at these levels. **DISCUSSION OF GUIDELINES AND LIMITS THEREFORE, IS ONLY CONDUCTED ON POSITIVE RESULTS.**

#### Bacteriology

Positive results for the Bacteriology scan were present six times in the treated water, eight times in the Site 1 water and seven times in the Site 2 water. The positive parameters were Standard Plate Count and/or Total Coliform Background.

Guidelines for bacteriological sampling and testing of a supply are developed to maintain a proper supervision of its bacteriological quality; the routine monitoring program usually requires the taking of multiple samples in a given system. Routine bacteriological monitoring, as outlined in the ODWOs is carried out by the operating authority.

#### Inorganic and Physical Parameters

##### **Laboratory and Field Chemistry**

The results for Laboratory and Field Chemistry scans were below any applicable health related ODWOs .

Turbidity in water is caused by the presence of suspended matter such as clay, silt, colloidal particles, plankton and other microscopic organisms. The most important potential health effect of Turbidity is its interference with disinfection in the treatment plant and maintenance of a chlorine residual. The ODWO of 1 Formazin Turbidity Unit (FTU) is only applicable to treated water leaving the plant.

Colour values exceeded the aesthetic ODWO of 5 True Colour Units (TCU) in the May Site 1 free flow sample at 6.5 TCU; the Site 2 free flow sample had an elevated colour level of 4.5 TCU, the August Site 1 free flow sample at 7.5 TCU. Colour in drinking water may be due to the presence of natural or synthetic organic substances as well as certain metallic ions. The iron levels in the May Site 2 and August Site 1 free flow samples exceeded the ODWO and the May Site 1 sample showed elevated levels. The May Site 2 sample also exceeded the ODWO for manganese.

It is desirable that the Temperature of drinking water be less than 15°C; the palatability of water is enhanced by its coolness. A temperature below 15°C will tend to reduce the growth of nuisance organisms and hence minimize associated taste, colour, odour and corrosion problems. The temperature of the delivered water may increase in the distribution system due to the warming effect of the soil in late summer and fall and/or as a result of higher temperatures in the source water. The desired ODWO was exceeded

thirteen times in the treated water and free flow distributed water.

As part of the treatment plant process, Hydrofluosilicic acid is added to the treated water (Table 3). Where fluoridation is practiced, the Fluoride concentration recommended in the ODWO is 1.2 mg/L, plus or minus 0.2 mg/L. This level was generally not maintained. Table 3 indicates that the dosage added is always 1.0 mg/L or higher but the fluoride results listed in Table 5 indicate that this is insufficient to maintain an adequate level in the treated water.

The Langelier Index is used extensively in estimating the corrosion potential of water. An increasingly negative index indicates the increasing possibility of corrosion. It is considered sound engineering practice to maintain a slightly positive Langelier Index. The Langelier Index for Wallaceburg is negative.

### **Metals**

The results reported for the Metal scan were below any applicable health related ODWOs.

The Iron values for the the May Site 2 water (420 ug/L) and the August Site 1 water (370 ug/L) exceeded the aesthetic ODWO of 300 ug/L. High colour was also found in these samples. The Turbidity value for Site 1 sample was also very high indicating that

sedimentation within the plumbing could have occurred. The aesthetic ODWO for Manganese (50 ug/L) was exceeded in the May Site 2 water (62 ug/L). At levels higher than the ODWOs Iron and Manganese may impart a brownish colour to laundered goods and cause undesirable tastes in beverages.

Elevated levels of Copper, Lead and Zinc were detected in the standing water samples as compared to the free flow samples and in the distribution system samples as compared to the treated water at the plant thus, indicating that small quantities of these metals were leached from the household plumbing as the water stood overnight. Although the Langelier Index indicates minimal potential for corrosion some metals will be leached in standing samples in most supplies.

At present, there is no evidence that Aluminum is physiologically harmful and no health limit for drinking water has been specified. The measure of residual Aluminum in the treated water is important to indicate the efficiency of the treatment process. The ODWOs indicate that a useful guideline is to maintain a residual below 100 ug/L as Al in the water leaving the plant to avoid problems in the distribution system. Aluminum values exceeded the ODWO operational guideline twice in the treated water.

## Organic Parameters

### **Chloroaromatics**

Results of the Chloroaromatics scan showed that two parameters were detected:

Hexachlorobutadiene

Hexachloroethane

Hexachlorobutadiene was detected at a trace level, once in the raw water.

Hexachloroethane was detected at a trace level, once in the Site 2 water.

Review of these results, along with information from other water supplies on DWSP, would indicate that certain Chloroaromatics appear more frequently in the treated water than in the raw and almost always only at trace levels. These occurrences could possibly be due to a reaction of chlorine with organics present in the water or in the distribution system.

### **Chlorophenols**

Results of the Chlorophenol scan showed that no Chlorophenols were detected.



### **Pesticides and PCB (Polychlorinated Biphenyl)**

Results of the Pesticides and PCB scan showed that no PCBs were detected and that one pesticide was detected:

#### **Alpha BHC**

There are several isomers of BHC (Benzene Hexachloride); gamma BHC is the active ingredient of the pesticide Lindane, while alpha BHC is the isomer predominantly found in surface waters of the Great Lakes basin as indicated in results from other water supplies on DWSP.

Alpha BHC was detected at trace levels, twelve times in the raw water, five times in the treated water, three times in the Site 1 water and twice in the Site 2 water.

### **Specific Pesticides**

Results of the Specific Pesticide scan showed that none were detected.

### **Phenolics**

The maximum desirable concentration of phenolic substances in drinking water is 2.0 ug/L. This limit has been set primarily to prevent the occurrence of undesirable tastes and odours, particularly in chlorinated water. Phenolics were detected at 1.7 ug/L in the August raw water sample, 1.0 ug/L in the December raw water and 1.0 ug/L in the treated water sampled in August.

Phenolics were detected at trace levels, seven times in the raw water and four times in the treated water. Phenolic compounds are present in the aquatic environment as a result of natural and/or industrial processes.

#### **Polynuclear Aromatic Hydrocarbons (PAH)**

Results of the PAH scan showed that no PAHs were detected.

#### **Volatiles**

Results of the Volatile scan showed that ten parameters, other than Trihalomethanes (THMs), were detected:

- Benzene
- Toluene
- Ethylbenzene
- Para-Xylene
- Meta-Xylene
- Ortho-Xylene
- Styrene
- 1,1,1-Trichloroethane
- 1,2-Dichloroethane
- Tetrachloroethylene

Benzene was detected in the January treated water at 0.70 ug/L , 0.60 ug/L in the Site 1 water and 0.55 ug/L in the Site 2 water. Health and Welfare Canada's Maximum Acceptable Concentration for Benzene in drinking water is 5 ug/L. Benzene was also detected at

trace levels, eight times in the raw water, eight times in the treated water and seven times in both distribution system waters.

Toluene was detected at trace levels, three times in the raw water, seven times in the treated water, four times in the Site 1 water and seven times in the Site 2 water. The detection of toluene at low, trace levels is a laboratory artifact derived from the analytical methodology. The purge-and-trap analytical technique depends on the purging of the volatile organics in the water sample with helium gas onto a Tenax trapping column. The volatile materials are subsequently thermally desorbed, separated and quantified. Tenax, a toluene-like polymeric material, tends to decompose sporadically upon heating into toluene and other aromatic componenets (ethylbenzene and xylene) giving instrument blanks in the order of 0.05 ug/L.

The detected trace levels of Styrene are also considered to be laboratory artifacts due to the outgassing of monomeric styrene from the polystyrene shipping containers. The sporadic background levels from this source are in the order of 0.05 ug/L.

Ethylbenzene was detected at trace levels, four times in the raw water, six times in the treated water, five times in the Site 1 water and six times in the Site 2 water.

Para-Xylene (P-Xylene) was detected at trace levels, once in the

raw water and once in samples of treated water and at both distribution sites in the first June sampling.

Meta-Xylene (M-Xylene) was detected at trace levels, twice in the raw water and three times in the treated water and at both distribution sites on the same sampling date.

Ortho-Xylene (O-Xylene) was detected at trace levels, twice in the raw water, twice in the treated water, twice in the Site 1 water and three times in the Site 2 water.

The volatiles listed above are typically found on an occasional basis at other water supplies included on the DWSP usually at trace levels.

1,1,1-Trichloroethane was detected at trace levels, once in the raw water, once in the Site 1 water and three times in the Site 2 water.

1,2-Dichloroethane was detected at a trace level, once in the Site 1 water.

Tetrachloroethylene (T-Chloroethylene) was detected at trace levels, twice in the raw water and once in the treated water and at both distribution sites in the May sampling.

Ethylene Dibromide was found at a trace level in the raw water on one occasion.

THMs are known to be produced during the water treatment process and will always occur in chlorinated surface waters. THMs are comprised of Chloroform, Chlorodibromomethane and Dichlorobromomethane. Bromoform occurs occasionally. Results are reported for the individual compounds as well as for total THMs.

Chloroform, Chlorodibromomethane, Dichlorobromomethane and Total THMs were detected in all treated waters. Bromoform was detected at trace levels. All Total THM occurrences, ranging from 15.3 ug/L to 42.2 ug/L, were well below the ODWO of 350 ug/L.

#### CONCLUSIONS

The Wallaceburg Water Treatment Plant for the sample year of 1988 produced good quality water at the plant and this was generally maintained in the distribution system.

No health related guidelines, for organic or inorganic parameters, were exceeded during 1986, 1987 and 1988.

Comparison with the results from the DWSP in 1986 and 1987 shows that raw and treated water quality for 1986 and 1987 has remained consistent.

## RECOMMENDATIONS

One recommendation can be made:

- 1) The application of Hydrofluosilicic acid should be reviewed to ensure delivery of adequate amounts of fluoride to the product water.

TABLE 3

DRINKING WATER SURVEILLANCE PROGRAM WALLACEBURG WTP SAMPLE DAY CONDITIONS FOR 1988

SAMPLE DAY CONDITIONS			TREATMENT CHEMICAL DOSAGES (MG/L)				
DATE	RETENTION TIME(HRS)	FLOW (1000M3)	PRE-CHLORINATION	COAGULATION	ADSORPTION	POST-CHLORINATION	FLUORIDATION
			CHLORINE	ALUM LIQUID	ACTIVATED CARBON POWDER	SODIUM CHLORITE	HYDROFLUOSILICIC ACID
JAN 13	12.0	10.9	1.20	15.00	5.00	.37	1.00
FEB 17	12.0	10.9	1.20	15.00	5.00	.38	1.00
MAR 16	12.0	10.9	1.00	20.00	5.00	.38	1.00
APR 13	12.0	10.9	1.00	20.00	5.00	.38	1.00
MAY 11	12.0	10.9	1.00	15.00	5.00	.37	1.00
JUN 15	12.0	10.9	1.00	15.00	5.00	.37	1.00
JUN 22	12.0	10.9	1.01	15.00	5.00	.38	1.00
JUL 13	12.0	10.9	1.00	15.00	5.00	.38	1.00
AUG 10	12.0	10.9	1.00	15.00	5.00	.38	1.00
SEP 13	14.0	9.9	1.00	15.00	5.00	.38	1.00
OCT 13	13.0	9.0	1.10	15.00	5.00	.38	1.10
NOV 16	13.0	9.0	1.10	15.00	5.00	.38	1.10
NOV 28	13.0	5.1	1.84	15.00	5.00	.46	1.00
DEC 07	13.0	9.0	1.03	10.00	5.00	.38	1.35
DEC 19	13.0	6.1	1.68	15.00	5.00	.34	1.36

TABLE 4

## DRINKING WATER SURVEILLANCE PROGRAM WALLACEBURG

## SUMMARY TABLE OF RESULTS (1988)

SCAN	PARAMETER	RAW			TREATED			SITE 1			SITE 2		
		TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE
BACTERIOLOGICAL	AEROMONAS SP	.	.	.	1	0	0	.	.	.	1	0	0
	E. COLI P/A	.	.	.	1	0	0	.	.	.	1	0	0
	FECAL COLIFORM MF	14	12	0	.	.	.	.	.	.	.	.	.
	FECAL COLIFORM	.	.	.	1	0	0	.	.	.	1	0	0
	STANDRD PLATE CNT MF	6	6	0	12	5	0	9	6	0	9	6	0
	P/A BOTTLE	.	.	.	8	1	0	6	0	0	7	1	0
	STAPH AUREUS	.	.	.	1	0	0	.	.	.	1	0	0
	COLIFORM	.	.	.	1	0	0	.	.	.	1	0	0
	TOTAL COLIFORM MF	13	13	0	14	0	0	9	0	0	10	0	0
	T COLIFORM BCKGRD MF	13	13	0	14	0	0	9	2	0	10	0	0
*TOTAL SCAN BACTERIOLOGICAL		46	44	0	53	6	0	33	8	0	41	7	0
*TOTAL GROUP BACTERIOLOGICAL		46	44	0	53	6	0	33	8	0	41	7	0
CHEMISTRY (FLD)	FLD CHLORINE (COMB)	.	.	.	15	15	0	19	19	0	18	18	0
	FLD CHLORINE FREE	.	.	.	15	15	0	19	19	0	19	19	0
	FLD CHLORINE (TOTAL)	.	.	.	15	15	0	19	19	0	20	20	0
	FLD PH	15	15	0	15	15	0	20	20	0	20	20	0
	FLD TEMPERATURE	15	15	0	15	15	0	19	19	0	20	20	0
	FLD TURBIDITY	15	15	0	15	15	0	18	18	0	20	20	0
*TOTAL SCAN CHEMISTRY (FLD)		45	45	0	90	90	0	114	114	0	117	117	0
CHEMISTRY (LAB)	ALKALINITY	15	15	0	15	15	0	20	20	0	20	20	0



TABLE 4

## DRINKING WATER SURVEILLANCE PROGRAM WALLACEBURG

## SUMMARY TABLE OF RESULTS (1988)

SCAN	PARAMETER	SITE											
		RAW			TREATED			SITE 1			SITE 2		
		TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE
CHEMISTRY (LAB)	CALCIUM	15	15	0	15	15	0	20	20	0	20	20	0
	CYANIDE	14	0	0	15	0	0	10	0	0	10	0	0
	CHLORIDE	15	15	0	15	15	0	20	20	0	20	20	0
	COLOUR	15	1	13	15	0	6	20	13	7	20	3	17
	CONDUCTIVITY	15	15	0	15	15	0	20	20	0	20	20	0
	FLUORIDE	15	14	1	15	15	0	20	20	0	20	20	0
	HARDNESS	15	15	0	15	15	0	20	20	0	20	20	0
	IONCAL	15	8	0	15	8	0	20	10	0	20	10	0
	LANGELIERS INDEX	14	14	0	5	5	0	6	6	0	8	8	0
	MAGNESIUM	15	15	0	15	15	0	20	20	0	20	20	0
	SODIUM	15	15	0	15	15	0	20	20	0	20	20	0
	AMMONIUM TOTAL	15	15	0	15	7	8	20	11	8	20	8	12
	NITRITE	15	8	7	15	2	6	20	0	16	20	0	16
	TOTAL NITRATES	15	15	0	15	15	0	20	18	2	20	18	2
	NITROGEN TOT KJELD	15	15	0	15	7	8	20	15	5	20	15	5
	PH	15	15	0	15	15	0	20	20	0	20	20	0
	PHOSPHORUS FIL REACT	15	6	9	15	1	11	.	.	.	.	.	.
	PHOSPHORUS TOTAL	15	5	10	15	0	5	.	.	.	.	.	.
	SULPHATE	8	8	0	8	8	0	10	10	0	10	10	0
	TURBIDITY	15	15	0	15	10	5	20	20	0	20	20	0
*TOTAL SCAN CHEMISTRY (LAB)		306	244	40	298	198	49	346	283	38	348	272	52
METALS	SILVER	15	0	3	15	0	9	20	0	15	20	0	4

TABLE 4

## DRINKING WATER SURVEILLANCE PROGRAM WALLACEBURG

## SUMMARY TABLE OF RESULTS (1988)

SCAN	PARAMETER	SITE											
		RAW			TREATED			SITE 1			SITE 2		
		TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE
METALS	ALUMINUM	15	15	0	15	15	0	20	20	0	20	20	0
	ARSENIC	15	0	14	15	0	15	20	0	20	20	0	20
	BARIUM	15	15	0	15	15	0	20	20	0	20	20	0
	BORON	15	7	8	15	9	6	20	14	6	20	10	10
	BERYLLIUM	15	0	8	15	0	7	20	0	8	20	0	9
	CADMIUM	15	0	0	15	0	0	20	0	7	20	0	3
	COBALT	15	0	15	15	0	14	20	0	20	20	0	20
	CHROMIUM	15	10	5	15	10	5	20	10	9	20	11	9
	COPPER	15	15	0	15	7	8	20	20	0	20	20	0
	IRON	15	13	2	15	0	11	20	20	0	20	13	7
	MERCURY	15	2	5	15	3	5	10	2	2	10	1	1
	MANGANESE	15	15	0	15	3	12	20	20	0	20	20	0
	MOLYBDENUM	15	6	9	15	12	3	20	12	8	20	10	10
	NICKEL	15	1	10	15	1	10	20	3	15	20	6	12
	LEAD	15	15	0	15	3	12	20	16	4	20	18	2
	ANTIMONY	15	8	7	15	8	7	20	11	9	20	10	10
	SELENIUM	15	0	14	15	0	15	20	0	17	20	0	20
	STRONTIUM	15	15	0	15	15	0	20	20	0	20	20	0
	TITANIUM	15	15	0	15	12	3	20	18	2	20	18	2
	THALLIUM	15	0	8	15	0	6	20	0	9	20	0	3
	URANIUM	15	14	1	15	1	14	20	0	20	20	0	19
	VANADIUM	15	2	13	15	13	2	20	11	9	20	10	10
	ZINC	15	15	0	15	15	0	20	20	0	20	20	0
*TOTAL SCAN METALS		360	183	122	360	142	164	470	237	180	470	227	171
*TOTAL GROUP INORGANIC & PHYSICAL		711	472	162	748	430	213	930	634	218	935	616	223

TABLE 4

## DRINKING WATER SURVEILLANCE PROGRAM WALLACEBURG

## SUMMARY TABLE OF RESULTS (1988)

SCAN	PARAMETER	SITE											
		RAW			TREATED			SITE 1			SITE 2		
		TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE
CHLOROAROMATICS	HEXACHLOROBUTADIENE	14	0	1	14	0	0	10	0	0	10	0	0
	123 TRICHLOROBENZENE	14	0	0	14	0	0	10	0	0	10	0	0
	1234 T-CHLOROBENZENE	14	0	0	14	0	0	10	0	0	10	0	0
	1235 T-CHLOROBENZENE	14	0	0	14	0	0	10	0	0	10	0	0
	124 TRICHLOROBENZENE	14	0	0	14	0	0	10	0	0	10	0	0
	1245 T-CHLOROBENZENE	14	0	0	14	0	0	10	0	0	10	0	0
	135 TRICHLOROBENZENE	14	0	0	14	0	0	10	0	0	10	0	0
	HCB	14	0	0	14	0	0	10	0	0	10	0	0
	HEXACHLOROETHANE	14	0	0	14	0	0	10	0	0	10	0	1
	OCTACHLOROSTYRENE	14	0	0	14	0	0	10	0	0	10	0	0
	PENTACHLOROBENZENE	14	0	0	14	0	0	10	0	0	10	0	0
	236 TRICHLOROTOLUENE	14	0	0	14	0	0	10	0	0	10	0	0
	245 TRICHLOROTOLUENE	14	0	0	14	0	0	10	0	0	10	0	0
	26A TRICHLOROTOLUENE	14	0	0	14	0	0	10	0	0	10	0	0
*TOTAL SCAN CHLOROAROMATICS		196	0	1	196	0	0	140	0	0	140	0	1
CHLOROPHENOLS	234 TRICHLOROPHENOL	2	0	0	2	0	0	.	.	.	.	.	.
	2345 T-CHLOROPHENOL	2	0	0	2	0	0	.	.	.	.	.	.
	2356 T-CHLOROPHENOL	2	0	0	2	0	0	.	.	.	.	.	.
	245-TRICHLOROPHENOL	2	0	0	2	0	0	.	.	.	.	.	.
	246-TRICHLOROPHENOL	2	0	0	2	0	0	.	.	.	.	.	.
	PENTACHLOROPHENOL	2	0	0	2	0	0	.	.	.	.	.	.
*TOTAL SCAN CHLOROPHENOLS		12	0	0	12	0	0	0	0	0	0	0	0

TABLE 4

## DRINKING WATER SURVEILLANCE PROGRAM WALLACEBURG

## SUMMARY TABLE OF RESULTS (1988)

SCAN	PARAMETER	SITE		RAW		TREATED		SITE 1			SITE 2		
		TOTAL		POSITIVE		TRACE		TOTAL			POSITIVE		
		TRACE		TRACE		TRACE		TRACE			TRACE		
PAH	PHENANTHRENE	14	0	0	14	0	0	.	.	.	.	.	.
	ANTHRACENE	14	0	0	14	0	0	.	.	.	.	.	.
	FLUORANTHENE	14	0	0	14	0	0	.	.	.	.	.	.
	PYRENE	14	0	0	14	0	0	.	.	.	.	.	.
	BENZO(A)ANTHRACENE	14	0	0	14	0	0	.	.	.	.	.	.
	CHRYSENE	14	0	0	14	0	0	.	.	.	.	.	.
	DIMETH. BENZ(A)ANTHR	14	0	0	14	0	0	.	.	.	.	.	.
	BENZO(E) PYRENE	14	0	0	14	0	0	.	.	.	.	.	.
	BENZO(J) FLUORANTHEN	0	0	0	0	0	0	.	.	.	.	.	.
	BENZO(B) FLUORANTHEN	14	0	0	14	0	0	.	.	.	.	.	.
	PERYLENE	14	0	0	14	0	0	.	.	.	.	.	.
	BENZO(K) FLUORANTHEN	14	0	0	14	0	0	.	.	.	.	.	.
	BENZO(A) PYRENE	14	0	0	14	0	0	.	.	.	.	.	.
	BENZO(G,H,I) PERYLEN	14	0	0	14	0	0	.	.	.	.	.	.
	DIBENZO(A,H) ANTHRAC	14	0	0	14	0	0	.	.	.	.	.	.
	INDENO(1,2,3-C,D) PY	14	0	0	14	0	0	.	.	.	.	.	.
	BENZO(B) CHRYSENE	14	0	0	14	0	0	.	.	.	.	.	.
	ANTHANTHRENE	0	0	0	0	0	0	.	.	.	.	.	.
	CORONENE	14	0	0	14	0	0	.	.	.	.	.	.
	*TOTAL SCAN PAH	238	0	0	238	0	0	0	0	0	0	0	0
PESTICIDES & PCB	ALDRIN	14	0	0	14	0	0	10	0	0	10	0	0
	ALPHA BHC	14	0	12	14	0	5	10	0	3	10	0	2

TABLE 4

## DRINKING WATER SURVEILLANCE PROGRAM WALLACEBURG

## SUMMARY TABLE OF RESULTS (1988)

SCAN	PARAMETER	SITE											
		RAW			TREATED			SITE 1			SITE 2		
		TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE
PESTICIDES & PCB	BETA BHC	14	0	0	14	0	0	10	0	0	10	0	0
	LINDANE	14	0	0	14	0	0	10	0	0	10	0	0
	ALPHA CHLORDANE	14	0	0	14	0	0	10	0	0	10	0	0
	GAMMA CHLORDANE	14	0	0	14	0	0	10	0	0	10	0	0
	DIELDRIN	14	0	0	14	0	0	10	0	0	10	0	0
	METHOXYCHLOR	14	0	0	14	0	0	10	0	0	10	0	0
	ENDOSULFAN I	14	0	0	14	0	0	10	0	0	10	0	0
	ENDOSULFAN II	14	0	0	14	0	0	10	0	0	10	0	0
	ENDRIN	14	0	0	14	0	0	10	0	0	10	0	0
	ENDOSULFAN SULPHATE	14	0	0	14	0	0	10	0	0	10	0	0
	HEPTACHLOR EPOXIDE	14	0	0	14	0	0	10	0	0	10	0	0
	HEPTACHLOR	14	0	0	14	0	0	10	0	0	10	0	0
	MIREX	14	0	0	14	0	0	10	0	0	10	0	0
	OXYCHLORDANE	14	0	0	14	0	0	10	0	0	10	0	0
	OPDDT	14	0	0	14	0	0	10	0	0	10	0	0
	PCB	14	0	0	14	0	0	10	0	0	10	0	0
	DDD	14	0	0	14	0	0	10	0	0	10	0	0
	PPDDE	14	0	0	14	0	0	10	0	0	10	0	0
	PPDDT	14	0	0	14	0	0	10	0	0	10	0	0
	AMETRINE	15	0	0	15	0	0	10	0	0	10	0	0
	ATRAZINE	15	0	0	15	0	0	10	0	0	10	0	0
	ATRATONE	15	0	0	15	0	0	10	0	0	10	0	0
	CYANAZINE	15	0	0	15	0	0	10	0	0	10	0	0
	DES ETHYL ATRAZINE	8	0	0	8	0	0	5	0	0	5	0	0
	DES ETHYL SIMAZINE	8	0	0	8	0	0	5	0	0	5	0	0

TABLE 4

## DRINKING WATER SURVEILLANCE PROGRAM WALLACEBURG

## SUMMARY TABLE OF RESULTS (1988)

SCAN	PARAMETER	SITE											
		RAW			TREATED			SITE 1			SITE 2		
		TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE
PESTICIDES & PCB	PROMETONE	15	0	0	15	0	0	10	0	0	10	0	0
	PROPazine	15	0	0	15	0	0	10	0	0	10	0	0
	PROMETRYNE	15	0	0	15	0	0	10	0	0	10	0	0
	METRIBUZIN	15	0	0	15	0	0	10	0	0	10	0	0
	SIMAZINE	15	0	0	15	0	0	10	0	0	10	0	0
	ALACHLOR	15	0	0	15	0	0	10	0	0	10	0	0
	METOLACHLOR	15	0	0	15	0	0	10	0	0	10	0	0
*TOTAL SCAN PESTICIDES & PCB		475	0	12	475	0	5	330	0	3	330	0	2
PHENOLICS	PHENOLICS	15	3	7	14	2	4	.	.	.	.	.	.
		15	3	7	14	2	4	0	0	0	0	0	0
*TOTAL SCAN PHENOLICS		15	3	7	14	2	4	0	0	0	0	0	0
SPECIFIC PESTICIDES	TOXAPHENE	0	0	0	0	0	0	0	0	0	0	0	0
	2,4,5-T	2	0	0	2	0	0	.	.	.	.	.	.
	2,4-D	2	0	0	2	0	0	.	.	.	.	.	.
	2,4-DB	2	0	0	2	0	0	.	.	.	.	.	.
	2,4 D PROPIONIC ACID	2	0	0	2	0	0	.	.	.	.	.	.
	DICAMBA	2	0	0	2	0	0	.	.	.	.	.	.
	PICHLORAM	0	0	0	0	0	0	.	.	.	.	.	.
	SILVEX	2	0	0	2	0	0	.	.	.	.	.	.
	DIAZINON	2	0	0	2	0	0	.	.	.	.	.	.

TABLE 4

## DRINKING WATER SURVEILLANCE PROGRAM WALLACEBURG

## SUMMARY TABLE OF RESULTS (1988)

SCAN	PARAMETER	SITE						SITE 1			SITE 2		
		TOTAL	RAW POSITIVE	TRACE	TOTAL	TREATED POSITIVE	TRACE	TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE
SPECIFIC PESTICIDES	DICHLOROVOS	2	0	0	2	0	0	.	.	.	.	.	.
	CHLORPYRIFOS	2	0	0	2	0	0	.	.	.	.	.	.
	ETHION	2	0	0	2	0	0	.	.	.	.	.	.
	AZINPHOS-METHYL	0	0	0	0	0	0	.	.	.	.	.	.
	MALATHION	2	0	0	2	0	0	.	.	.	.	.	.
	MEVINPHOS	2	0	0	2	0	0	.	.	.	.	.	.
	METHYL PARATHION	2	0	0	2	0	0	.	.	.	.	.	.
	METHYLTRITHION	2	0	0	2	0	0	.	.	.	.	.	.
	PARATHION	2	0	0	2	0	0	.	.	.	.	.	.
	PHORATE	2	0	0	2	0	0	.	.	.	.	.	.
	RELDAN	2	0	0	2	0	0	.	.	.	.	.	.
	RONNEL	2	0	0	2	0	0	.	.	.	.	.	.
	AMINOCARB	0	0	0	0	0	0	.	.	.	.	.	.
	BENONYL	2	0	0	2	0	0	.	.	.	.	.	.
	BUX	2	0	0	2	0	0	.	.	.	.	.	.
	CARBOFURAN	2	0	0	2	0	0	.	.	.	.	.	.
	CICP	2	0	0	2	0	0	.	.	.	.	.	.
	DIALATE	2	0	0	2	0	0	.	.	.	.	.	.
	EPTAM	2	0	0	2	0	0	.	.	.	.	.	.
	IPC	2	0	0	2	0	0	.	.	.	.	.	.
	PROPOXUR	2	0	0	2	0	0	.	.	.	.	.	.
	CARBARYL	2	0	0	2	0	0	.	.	.	.	.	.
	BUTYLATE	2	0	0	2	0	0	.	.	.	.	.	.
*TOTAL SCAN SPECIFIC PESTICIDES		56	0	0	56	0	0	0	0	0	0	0	0

TABLE 4

## DRINKING WATER SURVEILLANCE PROGRAM WALLACEBURG

## SUMMARY TABLE OF RESULTS (1988)

SCAN	PARAMETER	SITE						SITE 1			SITE 2		
		RAW		TREATED									
		TOTAL	POSITIVE TRACE	TOTAL	POSITIVE TRACE	TOTAL	POSITIVE TRACE	TOTAL	POSITIVE TRACE	TOTAL	POSITIVE TRACE	TOTAL	POSITIVE TRACE
VOLATILES	BENZENE	14	0	8	14	1	8	9	1	7	10	1	7
	TOLUENE	14	1	2	14	1	6	9	1	3	10	3	4
	ETHYLBENZENE	14	0	4	14	0	6	9	0	5	10	0	6
	P-XYLENE	13	1	0	14	1	0	9	1	0	10	1	0
	M-XYLENE	14	0	2	14	0	3	9	0	3	10	0	3
	O-XYLENE	14	0	2	14	0	2	9	0	2	10	0	3
	STYRENE	5	0	4	5	0	0	3	0	2	3	0	2
	1,1 DICHLOROETHYLENE	14	0	0	14	0	0	9	0	0	10	0	0
	METHYLENE CHLORIDE	14	0	0	14	0	0	9	0	0	10	0	0
	1,1,2 DICHLOROETHYLENE	14	0	0	14	0	0	9	0	0	10	0	0
	1,1 DICHLOROETHANE	14	0	0	14	0	0	9	0	0	10	0	0
	CHLOROFORM	14	0	2	14	14	0	9	9	0	10	10	0
	111, TRICHLOROETHANE	14	0	1	14	0	0	9	0	1	10	0	3
	1,2 DICHLOROETHANE	14	0	0	14	0	0	9	0	1	10	0	0
	CARBON TETRACHLORIDE	14	0	0	14	0	0	9	0	0	10	0	0
	1,2 DICHLOROPROPANE	14	0	0	14	0	0	9	0	0	10	0	0
	TRICHLOROETHYLENE	14	0	0	14	0	0	9	0	0	10	0	0
	DICHLOROBROMOMETHANE	14	0	1	14	14	0	9	9	0	10	10	0
	112 TRICHLOROETHANE	14	0	0	14	0	0	9	0	0	10	0	0
	CHLORODIBROMOMETHANE	14	0	1	14	14	0	9	9	0	10	10	0
	T-CHLOROETHYLENE	14	0	2	14	0	1	9	0	1	10	0	1
	BROMOFORM	14	0	0	14	2	11	9	1	8	10	0	10
	1122 T-CHLOROETHANE	14	0	0	14	0	0	9	0	0	10	0	0
	CHLOROBENZENE	14	0	1	14	0	0	9	0	0	10	0	0
	1,4 DICHLOROBENZENE	14	0	0	14	0	0	9	0	0	10	0	0



TABLE 4

## DRINKING WATER SURVEILLANCE PROGRAM WALLACEBURG

## SUMMARY TABLE OF RESULTS (1988)

SCAN	PARAMETER	SITE											
		RAW			TREATED			SITE 1			SITE 2		
		TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE
VOLATILES	1,3 DICHLOROBENZENE	14	0	0	14	0	0	9	0	0	10	0	0
	1,2 DICHLOROBENZENE	14	0	0	14	0	0	9	0	0	10	0	0
	TRIFLUOROCHLOROTOLUE	5	0	0	5	0	0	4	0	0	5	0	0
	ETHYLENE DIBROMIDE	14	0	1	14	0	0	9	0	0	10	0	0
	TOTL TRIHALOMETHANES	14	0	0	14	14	0	9	9	0	10	10	0
*TOTAL SCAN VOLATILES		401	2	31	402	61	37	259	40	33	288	45	39
*TOTAL GROUP ORGANIC		1393	5	51	1393	63	46	729	40	36	758	45	42
-----													
TOTAL		2150	521	213	2194	499	259	1692	682	254	1734	668	265

## KEY TO TABLE 5 and 6

- A     ONTARIO DRINKING WATER OBJECTIVES (ODWO)
1.   Maximum Acceptable Concentration (MAC)
  - 1+.  MAC for Total Trihalomethanes
  - 1\*.  MAC for Bacteriological Analyses
- Poor water quality is indicated when :
- total coliform counts  $> 0 < 5$
  - P/A Bottle Test is present after 48 hours
  - Aeromonas organisms are detected in more than 25% of samples in a single submission or in successive submissions from the same sampling site
  - Pseudomonas Aeruginosa, Staphylococcus Aureus and members of the Fecal Streptococcus group should not be detected in any sample
  - Standard Plate Count should not exceed 500 organisms per ml at 35 °C within 48 hours
2.   Interim Maximum Acceptable Concentration (IMAC)
  3.   Maximum Desirable Concentration (MDC)
  4.   Aesthetic or Recommended Operational Guideline
- hardness levels between 80 and 100 mg/L as calcium carbonate are considered to provide an acceptable balance between corrosion and incrustation, water supplies with a hardness  $> 200$  mg/L are considered poor and those in excess of 500 mg/L are unacceptable.
- B     HEALTH & WELFARE CANADA (H&W)
1.   Maximum Acceptable Concentration (MAC)
  2.   Proposed MAC
  3.   Interim MAC
  4.   Aesthetic Objective (AO) (for xylenes, the AO is a total)
- C     WORLD HEALTH ORGANIZATION (WHO)
1.   Guideline Value (GV)
  2.   Tentative GV
  3.   Aesthetic GV
- D     US ENVIRONMENTAL PROTECTION AGENCY (EPA)
1.   Maximum Contaminant Level (MCL)
  2.   Suggested No-Adverse Effect Level (SNAEL)
  3.   Lifetime Health Advisory
  4.   EPA Ambient Water Quality Criteria
- F     EUROPEAN ECONOMIC COMMUNITY (EEC)
1.   Health Related Guideline Level
  2.   Aesthetic Guideline Level
  3.   Maximum Admissible Concentration (MADC)
- G     CALIFORNIA STATE DEPARTMENT OF HEALTH-GUIDELINE VALUE
- H     USSR MAXIMUM PERMISSIBLE CONCENTRATION
- I     NEW YORK STATE AMBIENT WATER GUIDELINE
- N/A   NONE AVAILABLE

## INTERPRETATION OF DATA

The interpretation of analytical results that are obtained from measurements near the limit of detection of the measurement process is subject to greater uncertainty than those at higher concentrations. The principle areas of concern relate to whether the substance has actually been detected, whether it has been properly identified, and whether it is an artifact of the measurement process. In other words, false positives can be caused by the instrumentation or the test procedures used, when in fact these compounds are not present in the sample.

There are several methods to treat data from such measurements:

1. Exclude the low-level data because of this uncertainty factor. However, studies of long-term environmental trends and modelling may be adversely affected by exclusion of such data.
2. Qualify these data so the user is aware of the greater uncertainty associated with their use.

For the Drinking Water Surveillance Program, measurements near the limit of detection of the measurement process are reported qualified by the code "<T". Results quantified by "W" indicate a zero measurement. These results are reported for purposes of modelling and long-term trend analysis and no significance should be attributed to a single determination of a substance below "T" (a single determination may well be a false positive). Repeat analysis or additional data are needed before it can be stated with certainty that the substance in question was truly present. On the other hand, it is less likely that repeated detection of a substance at or near the limit of detection at a specific location is solely due to an artifact in the measurement system, and more likely represents a true positive. However the average of such data is still only an estimate of the amount of substance present subject to the possible biases of the method used.

### LABORATORY RESULTS, REMARK DESCRIPTIONS

.	No Sample Taken
BDL	Below Minimum Measurable Amount
<T	Greater Than Detection Limit But Not Confident (SEE INTERPRETATION OF RESULTS ABOVE)
>	Results Are Greater Than The Upper Limit
<=>	Approximate Result
!AW	No Data: Analysis Withdrawn
!CR	No Data: Could Not Confirm By Reanalysis
!CS	No Data: Contamination Suspected
!IL	No Data: Sample Incorrectly Labelled
!IS	No Data: Insufficient Sample
!LA	No Data: Laboratory Accident

!LD	No Data: Test Queued After Sample Discarded
!NA	No Data: No Authorization To Perform Reanalysis
!NP	No Data: No Procedure
!NR	No Data: Sample Not Received
!OP	No Data: Obscured Plate
!QU	No Data: Quality Control Unacceptable
!PE	No Data: Procedural Error - Sample Discarded
!PH	No Data: Sample pH Outside Valid Range
!RE	No Data: Received Empty
!RO	No Data: See Attached Report (no numeric results)
!SM	No Data: Sample Missing
!SS	No Data: Send Separate Sample Properly Preserved
!UI	No Data: Indeterminant Interference
!TX	No Data: Time Expired
A3C	Approximate, Total Count Exceeded 300 Colonies
APL	Additional Peak, Large, Not Priority Pollutant
APS	Additional Peak, Less Than, Not Priority Pollutant
CIC	Possible Contamination, Improper Cap
CRO	Calculated Result Only
PPS	Test Performed On Preserved Sample
RMP	P and M-Xylene Not Separated
RRV	Rerun Verification
RVU	Reported Value Unusual
SPS	Several Peaks, Small, Not Priority Pollutant
UAL	Unreliable: Sample Age Exceeds Normal Limit
UCR	Unreliable: Could Not Confirm By Reanalysis
UCS	Unreliable: Contamination Suspected
UIN	Unreliable: Indeterminant Interference
XP	Positive After X Number of Hours
T# (T06)	Result Taken After # Hours

TABLE 5

## DRINKING WATER SURVEILLANCE PROGRAM WALLACEBURG WTP 1988

## WATER TREATMENT PLANT

## DISTRIBUTION SYSTEM

RAW		TREATED	SITE 1		SITE 2	
			STANDING	FREE FLOW	STANDING	FREE FLOW
<hr/>						
BACTERIOLOGICAL						
AEROMONAS SP ( )			DET'N LIMIT = N/A		GUIDELINE = 0 (A1)	
APR	.	0	.	.	.	0
<hr/>						
E. COLI P/A ( )			DET'N LIMIT = N/A		GUIDELINE = N/A	
APR	.	0	.	.	.	0
<hr/>						
FECAL COLIFORM MF (CT/100ML )			DET'N LIMIT = 0		GUIDELINE = 0 (A1)	
JAN	14	.	.	.	.	.
MAR	6	.	.	.	.	.
APR	11	.	.	.	.	.
MAY	0	.	.	.	.	.
JUN	2	.	.	.	.	.
	0	.	.	.	.	.
JUL	6	.	.	.	.	.
AUG	11	.	.	.	.	.
SEP	19 T48	.	.	.	.	.
OCT	150 >	.	.	.	.	.
NOV	240	.	.	.	.	.
	268 T48	.	.	.	.	.
DEC	268	.	.	.	.	.
	64 T48	.	.	.	.	.
<hr/>						
FECAL COLIFORM ( )			DET'N LIMIT = N/A		GUIDELINE = 0 (A1)	
APR	.	0	.	.	.	0
<hr/>						
STANDRD PLATE CNT MF (CT/ML )			DET'N LIMIT = 0		GUIDELINE = 500/ML (A1)	
JAN	10P	3	.	2	.	2
MAR	640	16	.	4	.	1
APR	560	1	.	.	.	1AW
MAY	1200	0	.	2	.	2
JUN	2400 >	0	.	1	.	0
	1AW	1AW	.	.	.	.
JUL	16000	1LA	.	7	.	2
AUG	1100	9	.	21	.	98
SEP	.	0 <=>	.	.	.	.
OCT	.	1 <=>	.	1 <=>	.	0 <=>
NOV	.	12 T48	.	0 <=>	.	5 <=>
	.	5 <=>	.	.	.	.
DEC	.	1 <=>	.	0 <=>	.	27 T48
	.	2 <=>	.	.	.	.
<hr/>						
P/A BOTTLE ( )			DET'N LIMIT = 0		GUIDELINE = 0 (A1*)	
JAN	.	0	.	0	.	0
MAR	.	0	.	0	.	0

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## WATER TREATMENT PLANT

## DISTRIBUTION SYSTEM

	RAW	TREATED	SITE 1		SITE 2	
			STANDING	FREE FLOW	STANDING	FREE FLOW
APR	.	1	.	.	.	1
MAY	.	0	.	0	.	0
JUN	.	0	.	0	.	0
	.	0	.	.	.	.
JUL	.	0	.	0	.	0
AUG	.	0	.	0	.	0
<hr/>						
STAPH AUREUS ( )			DET'N LIMIT = N/A		GUIDELINE = 0 (A1)	
APR	.	0	.	.	.	0
<hr/>						
COLIFORM ( )			DET'N LIMIT = N/A		GUIDELINE = 0 (A1)	
APR	.	0	.	.	.	0
<hr/>						
TOTAL COLIFORM MF (CT/100ML )			DET'N LIMIT = 0		GUIDELINE = 5/100ML(A1)	
JAN	2100	0	.	0	.	0
MAR	6700	0	.	0	.	0
APR	1500	0	.	.	.	0
MAY	300	0	.	0	.	0
JUN	146 A3C	0	.	0	.	0
	1400	0	.	.	.	.
JUL	1400	0	.	0	.	0
AUG	510 A3C	0	.	0	.	0
SEP	1380 A3C	0 T48	.	.	.	.
OCT	2840 A3C	0 T48	.	0 T48	.	0 T48
NOV	1LA	0 T48	.	0 T24	.	0 T24
	1900 T48	0 T48	.	.	.	.
DEC	3400	0 T48	.	0 T48	.	0 T48
	1120 A3C	0 T48	.	.	.	.
<hr/>						
T COLIFORM BCKGRD MF (CT/100ML )			DET'N LIMIT = 0		GUIDELINE = N/A	
JAN	4200	0	.	1	.	0
MAR	11200	0	.	7	.	0
APR	2700	0	.	.	.	0
MAY	700	0	.	0	.	0
JUN	1600	0	.	0	.	0
	5300	0	.	.	.	.
JUL	8900	0	.	0	.	0
AUG	8000	0	.	0	.	0
SEP	6600 A3C	0 T48	.	.	.	.
OCT	16400 A3C	0 T48	.	0 T48	.	0 T48
NOV	1LA	0 T48	.	0 T24	.	0 T24
	7600 T48	0 T48	.	.	.	.
DEC	11100	0 T48	.	0 T48	.	0 T48
	4700 T48	0 T48	.	.	.	.

TABLE 5

## DRINKING WATER SURVEILLANCE PROGRAM WALLACEBURG WTP 1988

## WATER TREATMENT PLANT

## DISTRIBUTION SYSTEM

RAW		TREATED	SITE 1		SITE 2	
			STANDING	FREE FLOW	STANDING	FREE FLOW
-----						
CHEMISTRY (FLD)						
FLD CHLORINE (COMB) ( )			DET'N LIMIT = N/A		GUIDELINE = N/A	
JAN	.	.100	.050	.150	.050	.100
FEB	.	.300	.050	.050	.	.
MAR	.	.400	.050	.100	.100	.050
APR	.	.100	.	.	.	.
MAY	.	.200	.200	.050	.200	.050
JUN	.	.300	.100	.050	.050	.100
	.	.200	.	.	.	.
JUL	.	.100	.	.100	.050	.150
AUG	.	.080	.050	.050	.050	.050
SEP	.	.100	.	.	.	.
OCT	.	.200	.050	.100	.050	.050
NOV	.	.200	.100	.100	.100	.100
	.	.300	.	.	.	.
DEC	.	.150	.050	.050	.050	.100
	.	.300	.	.	.	.
-----						
FLD CHLORINE FREE ( )			DET'N LIMIT = N/A		GUIDELINE = N/A	
JAN	.	1.000	.250	.300	.100	.500
FEB	.	1.300	.100	.300	.	.
MAR	.	.900	.250	.300	.100	.300
APR	.	1.100	.	.	.100	.300
MAY	.	1.000	.100	.200	.100	.200
JUN	.	1.000	.100	.250	.050	.200
	.	1.100	.	.	.	.
JUL	.	1.100	.	.100	.050	.150
AUG	.	1.020	.050	.100	.100	.200
SEP	.	1.000	.	.	.	.
OCT	.	1.000	.050	.100	.	.200
NOV	.	1.100	.200	.300	.100	.400
	.	1.100	.	.	.	.
DEC	.	1.000	.050	.250	.050	.400
	.	.900	.	.	.	.
-----						
FLD CHLORINE (TOTAL) ( )			DET'N LIMIT = N/A		GUIDELINE = N/A	
JAN	.	1.100	.300	.450	.150	.600
FEB	.	1.600	.150	.350	.	.
MAR	.	1.300	.300	.400	.200	.350
APR	.	1.200	.	.	.100	.300
MAY	.	1.200	.120	.250	.300	.250
JUN	.	1.300	.200	.300	.100	.300
	.	1.300	.	.	.	.
JUL	.	1.200	.	.200	.100	.300
AUG	.	1.100	.100	.150	.150	.250
SEP	.	1.100	.	.	.	.
OCT	.	1.200	.100	.200	.050	.250
NOV	.	1.300	.300	.400	.200	.500

TABLE 5

## DRINKING WATER SURVEILLANCE PROGRAM WALLACEBURG WTP 1988

## WATER TREATMENT PLANT

## DISTRIBUTION SYSTEM

	RAW	TREATED	SITE 1		SITE 2	
			STANDING	FREE FLOW	STANDING	FREE FLOW
NOV	.	1.400	.	.	.	.
DEC	.	1.150	.100	.300	.100	.500
	.	1.200	.	.	.	.
FLD PH (DMNSLESS )			DET'N LIMIT = N/A		GUIDELINE = 6.5-8.5(A4)	
JAN	6.800	7.200	7.200	7.300	7.200	7.300
FEB	7.600	7.300	7.200	7.300	.	.
MAR	7.500	7.000	7.200	7.000	7.000	7.200
APR	7.600	7.100	.	.	7.200	7.300
MAY	7.600	7.000	7.300	7.200	7.400	7.200
JUN	7.800	7.200	7.400	7.500	7.400	7.500
	8.000	7.300	.	.	.	.
JUL	8.000	7.200	7.400	7.200	7.300	7.200
AUG	7.200	8.000	7.500	7.500	7.400	7.200
SEP	8.000	7.300	.	.	.	.
OCT	7.900	7.100	7.400	7.400	7.200	7.400
NOV	7.700	7.000	7.500	7.500	7.500	7.300
	7.800	7.300	.	.	.	.
DEC	7.600	7.100	7.300	7.300	7.300	7.200
	7.500	7.300	.	.	.	.
FLD TEMPERATURE (DEG.C )			DET'N LIMIT = N/A		GUIDELINE = 15 (A1)	
JAN	2.000	4.000	7.000	6.000	10.000	7.000
FEB	1.000	2.000	8.000	.	.	.
MAR	2.000	4.000	7.000	4.000	8.000	6.000
APR	5.000	6.000	.	.	12.000	9.000
MAY	10.000	12.000	13.000	12.000	15.000	13.000
JUN	15.000	17.000	20.000	21.000	20.000	17.000
	17.000	18.000	.	.	.	.
JUL	20.000	22.000	20.000	22.000	24.000	22.000
AUG	22.000	25.000	24.000	23.000	25.000	24.000
SEP	19.000	20.000	.	.	.	.
OCT	14.500	15.000	13.000	18.000	18.000	18.000
NOV	9.000	10.000	13.000	13.000	13.000	13.000
	7.000	8.000	.	.	.	.
DEC	3.000	8.000	11.000	11.000	12.000	12.000
	3.000	3.000	.	.	.	.
FLD TURBIDITY (FTU )			DET'N LIMIT = N/A		GUIDELINE = 1.0 (A1)	
JAN	1.750	.140	.730	.540	.530	.280
FEB	1.800	.170	.	.	.	.
MAR	6.000	.250	.150	.160	.100	.150
APR	12.000	.140	.	.	.700	.550
MAY	4.000	.150	.350	.290	.120	.170
JUN	4.800	.150	.900	.420	.880	1.000
	4.500	.150	.	.	.	.
JUL	6.000	.170	.800	.800	.420	.550



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## WATER TREATMENT PLANT

## DISTRIBUTION SYSTEM

	RAW	TREATED	SITE 1		SITE 2	
			STANDING	FREE FLOW	STANDING	FREE FLOW
AUG	3.400	.160	3.500	1.500	.420	.350
SEP	5.300	.130	.	.	.	.
OCT	8.000	.170	.750	.750	1.700	.450
NOV	3.500	.160	.750	1.000	.890	.290
	3.000	.340	.	.	.	.
DEC	10.000	.400	1.100	.680	.510	.290
	2.700	.250	.	.	.	.

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## DRINKING WATER SURVEILLANCE PROGRAM WALLACEBURG WTP 1988

## WATER TREATMENT PLANT

## DISTRIBUTION SYSTEM

		RAW	TREATED	SITE 1		SITE 2	
				STANDING	FREE FLOW	STANDING	FREE FLOW
<hr/>							
CHEMISTRY (LAB)				DET'N LIMIT = .200		GUIDELINE = 30-500 (A4)	
ALKALINITY (MG/L )							
JAN	83.200		73.000	71.700	73.300	72.000	73.100
FEB	84.800 UAL		72.000 UAL	73.200 UAL	73.300 UAL	.	.
MAR	87.000		75.300	75.300	74.900	78.600	76.700
APR	88.900		90.700	.	.	101.200	73.400
MAY	91.300		76.400	78.400	77.700	80.000	79.600
JUN	75.800		76.400	76.100	75.400	77.100	76.800
	86.000		74.000	.	.	.	.
JUL	87.700		75.600	76.800	77.200	77.700	77.100
AUG	87.100		76.000	76.700	77.400	76.600	76.400
SEP	85.900		75.000	.	.	.	.
OCT	84.600		73.700	76.700	75.400	75.800	75.300
NOV	85.400		77.200	76.800	77.500	77.900	77.500
	86.200		74.600	.	.	.	.
DEC	84.500		70.400	74.000	72.400	73.900	73.500
	84.300		71.400	.	.	.	.
<hr/>							
CALCIUM (MG/L )				DET'N LIMIT = .100		GUIDELINE = 100 (F2)	
JAN	29.400		29.200	28.200	29.200	29.200	29.000
FEB	29.000 UAL		28.000 UAL	28.200 UAL	28.600 UAL	.	.
MAR	29.600		32.800	31.800	31.800	32.800	32.800
APR	30.600		30.600	.	.	29.600	30.000
MAY	29.800		30.000	30.800	29.800	31.000	30.000
JUN	27.600		28.000	28.200	27.600	29.000	28.400
	29.600		29.800	.	.	.	.
JUL	31.200		30.400	31.200	31.600	31.600	31.000
AUG	29.800		28.400	30.400	30.200	29.000	30.400
SEP	30.400		29.800	.	.	.	.
OCT	30.200		30.400	31.400	31.000	30.600	30.200
NOV	31.000		32.000	31.400	32.800	33.200	32.200
	28.200		30.200	.	.	.	.
DEC	28.400		28.600	27.200	26.800	26.800	27.600
	27.200		29.400	.	.	.	.
<hr/>							
CHLORIDE (MG/L )				DET'N LIMIT = .200		GUIDELINE = 250 (A3)	
JAN	10.300		11.400	11.800	11.400	11.400	11.500
FEB	11.400 UAL		13.000 UAL	13.000 UAL	12.400 UAL	.	.
MAR	11.400		14.500	15.000	14.500	15.300	14.600
APR	10.500		11.800	.	.	11.900	11.800
MAY	10.300		12.200	12.700	11.900	12.100	12.200
JUN	8.800		10.000	10.000	10.200	10.300	9.900
	9.400		10.800	.	.	.	.
JUL	10.400		11.200	11.600	11.500	12.000	11.500
AUG	8.100		10.000	10.800	10.500	10.400	10.600
SEP	9.100		10.600	.	.	.	.
OCT	9.500		11.100	11.600	11.200	11.800	11.300
NOV	11.000		13.000	12.900	12.900	12.900	12.800

TABLE 5

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## WATER TREATMENT PLANT

## DISTRIBUTION SYSTEM

	RAW	TREATED	SITE 1		SITE 2	
			STANDING	FREE FLOW	STANDING	FREE FLOW
NOV	10.400	12.200	.	.	.	.
DEC	10.200	11.800	12.000	11.900	11.900	11.800
	10.400	11.700	.	.	.	.
<hr/>						
COLOUR (HZU )			DET'N LIMIT = .5		GUIDELINE = 5.0 (A3)	
JAN	1.500 <T	BDL	1.500 <T	1.500 <T	1.500 <T	1.000 <T
FEB	1.000 <T	BDL	3.000 UAL	2.000 <T	.	.
MAR	3.000	BDL	1.500 <T	2.500	2.000 <T	3.500
APR	BDL	BDL	.	.	1.500 <T	1.000 <T
MAY	1.000 <T	.500 <T	7.500	6.500	1.000 <T	4.500
JUN	1.000 <T	.500 <T	2.500	2.000 <T	3.000	1.000 <T
	1.500 <T	.500 <T	.	.	.	.
JUL	1.000 <T	BDL	2.500	2.500	.500 <T	1.000 <T
AUG	1.000 <T	1.000 <T	13.000	7.500	1.500 <T	1.500 <T
SEP	.500 <T	BDL	.	.	.	.
OCT	.500 <T	.500 <T	3.000	2.500	2.000 <T	1.500 <T
NOV	1.500 <T	BDL	2.000 <T	1.500 <T	1.500 <T	.500 <T
	.500 <T	BDL	.	.	.	.
DEC	.500 <T	BDL	4.000	2.500	1.000 <T	1.000 <T
	1.000 <T	.500 <T	.	.	.	.
<hr/>						
CONDUCTIVITY (UMHO/CM )			DET'N LIMIT = 1		GUIDELINE = 400 (F2)	
JAN	231	238	238	239	232	239
FEB	236 UAL	244 UAL	245 UAL	245 UAL	.	.
MAR	241	270	272	269	281	273
APR	239	250	.	.	251	248
MAY	247	251	259	254	259	255
JUN	244	244	244	242	247	244
	229	240	.	.	.	.
JUL	240	245	251	249	251	248
AUG	229	237	245	242	242	243
SEP	230	239	.	.	.	.
OCT	231	237	241	237	241	238
NOV	240	255	255	254	256	255
	236	244	.	.	.	.
DEC	230	238	239	239	240	240
	230	237	.	.	.	.
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FLUORIDE (MG/L )			DET'N LIMIT = .01		GUIDELINE = 2.400 (A1)	
JAN	.080	.560	.900	.800	.880	.840
FEB	.030 <T	.840 UAL	.740 UAL	.860 UAL	.	.
MAR	.090	.730	.910	.850	1.000	.910
APR	.080	.570	.	.	.700	.710
MAY	.070	1.050	1.010	1.010	.930	.980
JUN	.080	1.080	.950	1.040	.930	.960
	.090	1.320	.	.	.	.
JUL	.090	1.090	1.040	1.010	.960	1.020

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## DRINKING WATER SURVEILLANCE PROGRAM WALLACEBURG WTP 1988

## WATER TREATMENT PLANT

## DISTRIBUTION SYSTEM

	RAW	TREATED	SITE 1		SITE 2	
			STANDING	FREE FLOW	STANDING	FREE FLOW
AUG	.080	.290	.560	.590	.850	.920
SEP	.060	.960	.	.	.	.
OCT	.080	.900	.820	.760	.880	.820
NOV	.100	.560	.760	.440	.680	.700
	.080	.780	.	.	.	.
DEC	.080	1.560	.720	1.220	.960	1.160
	.080	1.220	.	.	.	.
<hr/>						
HARDNESS (MG/L )			DET'N LIMIT = .500		GUIDELINE = 80-100 (A4)	
JAN	105.000	105.000	100.000	104.000	105.000	104.000
FEB	104.000 UAL	102.000 UAL	102.000 UAL	103.000 UAL	.	.
MAR	106.000	116.000	114.000	113.000	116.000	116.000
APR	108.000	108.000	.	.	103.000	106.000
MAY	105.000	105.000	107.000	104.000	108.000	105.000
JUN	101.000	101.000	101.000	99.000	103.000	102.000
	107.000	107.000	.	.	.	.
JUL	111.000	109.000	111.000	112.000	111.000	110.000
AUG	107.000	103.000	108.000	108.000	104.000	107.000
SEP	107.000	106.000	.	.	.	.
OCT	107.000	106.000	108.000	109.000	108.000	107.000
NOV	109.000	113.000	110.000	114.000	115.000	112.000
	101.000	106.000	.	.	.	.
DEC	104.000	104.000	101.000	99.000	100.000	102.000
	99.000	105.000	.	.	.	.
<hr/>						
IONCAL (DMNSLESS )			DET'N LIMIT = N/A		GUIDELINE = N/A	
JAN	.000 NAF	.000 NAF	.000 NAF	.000 NAF	.000 NAF	.000 NAF
FEB	.000 NAF	.000 NAF	.000 NAF	.000 NAF	.	.
MAR	.000 NAF	.000 NAF	.000 NAF	.000 NAF	.000 NAF	.000 NAF
APR	.000 NAF	.000 NAF	.	.	.000 NAF	.000 NAF
MAY	.000 NAF	.000 NAF	.000 NAF	.000 NAF	.000 NAF	.000 NAF
JUN	.000 NAF	.000 NAF	.000 NAF	.000 NAF	.000 NAF	.000 NAF
	.000 NAF	.000 NAF	.	.	.	.
JUL	2.094	.431	2.380	3.338	1.603	2.038
AUG	1.438	2.826	.710	.084	.998	1.736
SEP	2.076	2.002	.	.	.	.
OCT	3.157	3.237	3.035	5.447	5.124	2.768
NOV	2.169	1.198	.850	3.264	4.191	3.050
	4.756	1.130	.	.	.	.
DEC	.091	2.247	3.554	3.553	4.204	3.595
	3.598	1.690	.	.	.	.
<hr/>						
LANGELIERS INDEX (DMNSLESS )			DET'N LIMIT = N/A		GUIDELINE = N/A	
JAN	.016 NAF	.366 NAF	.369 NAF	.355 NAF	.080 NAF	.329 NAF
FEB	.047 NAF	.153 NAF	.283 NAF	.446 NAF	.	.
MAR	.175 NAF	.225 NAF	.189 NAF	.320 NAF	.240 NAF	.248 NAF
APR	.239 NAF	.124 NAF	.	.	.157 NAF	.106 NAF

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## DRINKING WATER SURVEILLANCE PROGRAM WALLACEBURG WTP 1988

## WATER TREATMENT PLANT

## DISTRIBUTION SYSTEM

	RAW	TREATED	SITE 1		SITE 2	
			STANDING	FREE FLOW	STANDING	FREE FLOW

MAY	.266 NAF	.070 NAF	.010 NAF	.036 NAF	.031 NAF	.037 NAF
JUN	-.157 NAF	-.097 NAF	-.036 NAF	-.078 NAF	-.039 NAF	-.048 NAF
	.224 NAF	.432 NAF	.	.	.	.
JUL	.232	-.356	-.160	-.252	-.160	-.180
AUG	.083	-.150	-.120	-.128	-.070	-.121
SEP	.295	-.216	.	.	.	.
OCT	.065	-.224	-.104	-.146	-.021	-.098
NOV	.277	-.309	-.199	-.216	-.049	-.204
	.122	-.004	.	.	.	.
DEC	.168	-.171	-.061	-.127	-.089	-.138
	.099	-.412	.	.	.	.

MAGNESIUM (MG/L )

DET'N LIMIT = .050

GUIDELINE = 30 (F2)

JAN	7.600	7.700	7.300	7.500	7.700	7.600
FEB	7.600 UAL	7.700 UAL	7.600 UAL	7.600 UAL	.	.
MAR	7.900	8.300	8.300	8.100	8.300	8.200
APR	7.800	7.700	.	.	7.200	7.400
MAY	7.500	7.300	7.400	7.300	7.400	7.300
JUN	7.800	7.600	7.600	7.400	7.500	7.500
	7.950	7.900	.	.	.	.
JUL	8.100	8.000	8.100	8.000	7.900	8.000
AUG	7.900	7.700	7.800	7.800	7.800	7.700
SEP	7.600	7.700	.	.	.	.
OCT	7.700	7.400	7.200	7.700	7.600	7.600
NOV	7.600	7.900	7.700	7.900	7.700	7.800
	7.500	7.500	.	.	.	.
DEC	8.000	7.800	7.900	7.900	8.100	8.000
	7.600	7.700	.	.	.	.

SODIUM (MG/L )

DET'N LIMIT = .200

GUIDELINE = 200 (C3)

JAN	6.800	6.600	7.000	6.800	6.600	6.600
FEB	7.200 UAL	7.400 UAL	7.200 UAL	7.000 UAL	.	.
MAR	7.000	7.800	8.000	7.200	8.200	8.000
APR	7.200	7.000	.	.	6.600	7.000
MAY	6.400	6.400	7.000	7.000	7.000	6.800
JUN	5.400	5.600	5.600	5.600	5.600	5.400
	5.800	6.500	.	.	.	.
JUL	6.600	6.400	6.600	6.600	6.600	6.600
AUG	5.400	5.600	6.000	5.600	6.000	6.200
SEP	5.800	6.200	.	.	.	.
OCT	6.200	6.400	6.600	6.600	6.800	6.600
NOV	6.600	6.800	6.800	6.600	7.000	7.000
	6.000	6.200	.	.	.	.
DEC	6.800	6.600	6.600	6.600	6.800	6.600
	6.600	6.400	.	.	.	.

AMMONIUM TOTAL (MG/L )

DET'N LIMIT = 0.002

GUIDELINE = .05 (F2)

JAN	.020	.008 <T	.008 <T	.008 <T	.008 <T	.008 <T
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TABLE 5

## DRINKING WATER SURVEILLANCE PROGRAM WALLACEBURG WTP 1988

## WATER TREATMENT PLANT

## DISTRIBUTION SYSTEM

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM			
	RAW	TREATED	SITE 1		SITE 2	
			STANDING	FREE FLOW	STANDING	FREE FLOW
FEB	.028 UAL	.002 <T	.022 UAL	BDL	.	.
MAR	.012	.010	.012	.010	.010	.010
APR	.020	.004 <T	.	.	.016	.006 <T
MAY	.040	.016	.024	.016	.020	.016
JUN	.028	.006 <T	.134	.008 <T	.010	.006 <T
	.034	.020	.	.	.	.
JUL	.022	.004 <T	.192	.006 <T	.008 <T	.004 <T
AUG	.022	.008 <T	.208	.004 <T	.006 <T	.008 <T
SEP	.024	.014	.	.	.	.
OCT	.022	.072	.006 <T	.006 <T	.008 <T	.006 <T
NOV	.026	.006 <T	.068	.006 <T	.006 <T	.006 <T
	.030	.008 <T	.	.	.	.
DEC	.024	.010	.058	.012	.014	.010
	.026	.016	.	.	.	.
<hr/>						
NITRITE (MG/L )			DET'N LIMIT = 0.001		GUIDELINE = 1.000 (A1)	
JAN	.002 <T	BDL	BDL	BDL	BDL	BDL
FEB	.003 <T	BDL	.002 <T	BDL	.	.
MAR	.023	BDL	.001 <T	.001 <T	.001 <T	BDL
APR	.006	BDL	.	.	.002 <T	.001 <T
MAY	.004 <T	BDL	.003 <T	.002 <T	.002 <T	.002 <T
JUN	.004 <T	BDL	.001 <T	BDL	.002 <T	BDL
	.006	.001 <T	.	.	.	.
JUL	.004 <T	.001 <T	.001 <T	.001 <T	.002 <T	.001 <T
AUG	.007	.004 <T	.004 <T	.002 <T	.003 <T	.003 <T
SEP	.006	.005	.	.	.	.
OCT	.005	.001 <T	.003 <T	.002 <T	.003 <T	.002 <T
NOV	.006	.001 <T	.001 <T	.001 <T	.002 <T	.001 <T
	.004 <T	BDL	.	.	.	.
DEC	.003 <T	.001 <T	.001 <T	.001 <T	.002 <T	.001 <T
	.004	.001	.	.	.	.
<hr/>						
TOTAL NITRATES (MG/L )			DET'N LIMIT = .020		GUIDELINE = 10.000 (A1)	
JAN	.350	.335	.030 <T	.025 <T	.020 <T	.020 <T
FEB	.330 UAL	.320 UAL	.360 UAL	.310 UAL	.	.
MAR	.505	.740	.740	.700	.820	.710
APR	.430	.425	.	.	.385	.375
MAY	.325	.330	.330	.320	.340	.310
JUN	.295	.300	.500	.295	.300	.295
	.285	.295	.	.	.	.
JUL	.275	.275	.580	.265	.290	.270
AUG	.280	.295	.585	.265	.280	.275
SEP	.260	.270	.	.	.	.
OCT	.255	.260	.260	.245	.260	.255
NOV	.510	.720	.845	.685	.685	.660
	.465	.355	.	.	.	.
DEC	.345	.325	.435	.295	.305	.300
	.320	.330	.	.	.	.

TABLE 5

## DRINKING WATER SURVEILLANCE PROGRAM WALLACEBURG WTP 1988

## WATER TREATMENT PLANT

## DISTRIBUTION SYSTEM

RAW		TREATED	SITE 1		SITE 2	
			STANDING	FREE FLOW	STANDING	FREE FLOW
NITROGEN TOT KJELD (MG/L )			DET'N LIMIT = .020		GUIDELINE = N/A	
JAN	.170	.080 <T	.160	.090 <T	.120	.090 <T
FEB	.180 UAL	.080 <T	.150 UAL	.080 <T	.	.
MAR	.190	.090 <T	.160	.100	.130	.100
APR	.260	.100	.	.	.160	.140
MAY	.170	.050 <T	.200	.070 <T	.060 <T	.080 <T
JUN	.230	.090 <T	.340	.120	.270	.150
	.210	.110	.	.	.	.
JUL	.210	.090 <T	.420	.090 <T	.160	.100
AUG	.190	.130	.450	.100	.120	.110
SEP	.120	.130	.	.	.	.
OCT	.190	.080 <T	.310	.090 <T	.170	.100
NOV	.160	.110	.210	.110	.110	.090 <T
	.170	.080 <T	.	.	.	.
DEC	.180	.100	.210	.110	.110	.090 <T
	.180	.100	.	.	.	.
PH (DMNSLESS )			DET'N LIMIT = N/A		GUIDELINE = 6.5-8.5(A4)	
JAN	8.040	7.720	7.740	7.730	8.010	7.760
FEB	8.070 UAL	7.960 UAL	7.820 UAL	7.650 UAL	.	.
MAR	8.180	7.810	7.860	7.730	7.780	7.780
APR	8.220	8.100	.	.	8.100	7.970
MAY	8.250	7.990	8.030	8.020	8.060	8.080
JUN	7.940	7.990	8.050	8.020	8.030	8.030
	8.230	7.640	.	.	.	.
JUL	8.210	7.700	7.880	7.780	7.870	7.860
AUG	8.080	7.930	7.930	7.920	8.000	7.930
SEP	8.290	7.850	.	.	.	.
OCT	8.070	7.840	7.930	7.900	8.030	7.960
NOV	8.270	7.720	7.840	7.800	7.960	7.820
	8.150	8.060	.	.	.	.
DEC	8.200	7.940	8.050	8.000	8.030	7.970
	8.150	7.680	.	.	.	.
PHOSPHORUS FIL REACT (MG/L )			DET'N LIMIT = .0005		GUIDELINE = N/A	
JAN	.002 <T	.001 <T	.	.	.	.
FEB	.001 <T	.000 <T	.	.	.	.
MAR	.004	.002 <T	.	.	.	.
APR	.005	.001 <T	.	.	.	.
MAY	.002	.002 <T	.	.	.	.
JUN	.002 <T	.001 <T	.	.	.	.
	.004	.001 <T	.	.	.	.
JUL	.001 <T	.000 <T	.	.	.	.
AUG	.000 <T	BDL	.	.	.	.
SEP	.002	.001 <T	.	.	.	.
OCT	.000 <T	BDL	.	.	.	.
NOV	.001 <T	BDL	.	.	.	.
	.001 <T	.001 <T	.	.	.	.

TABLE 5

## DRINKING WATER SURVEILLANCE PROGRAM WALLACEBURG WTP 1988

## WATER TREATMENT PLANT

## DISTRIBUTION SYSTEM

	RAW	TREATED	SITE 1		SITE 2	
			STANDING	FREE FLOW	STANDING	FREE FLOW
DEC	.002 <T .001	.001 <T .001	.	.	.	.
<hr/>						
PHOSPHORUS TOTAL (MG/L )			DET'N LIMIT = .002		GUIDELINE = .40 (F2)	
JAN	.002 <T	BDL	.	.	.	.
FEB	.006 <T	BDL	.	.	.	.
MAR	.013	BDL	.	.	.	.
APR	.019	BDL	.	.	.	.
MAY	.007 <T	BDL	.	.	.	.
JUN	.010	BDL	.	.	.	.
	.013	.006 <T	.	.	.	.
JUL	.009 <T	.002 <T	.	.	.	.
AUG	.002 <T	BDL	.	.	.	.
SEP	.006 <T	.007 <T	.	.	.	.
OCT	.011	.002 <T	.	.	.	.
NOV	.008 <T	.003 <T	.	.	.	.
	.005 <T	BDL	.	.	.	.
DEC	.008 <T	BDL	.	.	.	.
	.005 <T	BDL	.	.	.	.
<hr/>						
SULPHATE ( )			DET'N LIMIT = .200		GUIDELINE = 500. (A3)	
JUL	18.900	28.660	26.970	26.640	27.010	26.790
AUG	16.800	25.800	25.820	25.560	25.400	25.620
SEP	17.000	25.300	.	.	.	.
OCT	17.300	25.400	23.800	24.000	22.200	24.600
NOV	17.000	26.500	25.000	25.500	25.000	25.000
	16.610	24.320	.	.	.	.
DEC	17.900	26.000	25.500	26.500	27.000	28.000
	16.870	26.890	.	.	.	.
<hr/>						
TURBIDITY (FTU )			DET'N LIMIT = .02		GUIDELINE = 1.00 (A1)	
JAN	.810	.080 <T	.340	.270	.330	.130
FEB	1.820 UAL	.040 <T	.510 UAL	.180 UAL	.	.
MAR	5.300	.090 <T	.320	.420	.290	.430
APR	13.900	.300	.	.	.400	.320
MAY	3.400	.060 <T	.800	.880	.200	2.300
JUN	4.100	.030 <T	.300	.250	.500	.180
	7.800	.310	.	.	.	.
JUL	5.400	.270	.710	.560	.400	.420
AUG	3.100	.640	3.100	1.220	.680	.470
SEP	5.400	.640	.	.	.	.
OCT	6.700	.370	.650	.670	.820	.740
NOV	6.000	.510	.790	.400	.410	.370
	4.500	.950	.	.	.	.
DEC	11.900	.330	.790	.680	.440	.440
	2.900	.310	.	.	.	.



TABLE 5

## DRINKING WATER SURVEILLANCE PROGRAM WALLACEBURG WTP 1988

## WATER TREATMENT PLANT

## DISTRIBUTION SYSTEM

		WATER TREATMENT PLANT		DISTRIBUTION SYSTEM		
		RAW	TREATED	SITE 1		SITE 2
				STANDING	FREE FLOW	STANDING      FREE FLOW
METALS						
SILVER (UG/L )				DET'N LIMIT = .020		GUIDELINE = 50. (A1)
JAN	BDL	BDL	BDL	.080 <T	BDL	BDL
FEB	.040 <T	.040 <T	.040 <T	.060 <T	.020 <T	BDL
MAR	BDL	BDL	BDL	.030 <T	.090 <T	.050 <T
APR	BDL	BDL	BDL	.	.	BDL
MAY	BDL	.030 <T	.100 <T	BDL	BDL	BDL
JUN	BDL	BDL	.190 <T	BDL	BDL	BDL
	BDL	.310 <T	.	.	.	.
JUL	BDL	.050 <T	.140 <T	.030 <T	BDL	BDL
AUG	BDL	BDL	.090 <T	.030 <T	.050 <T	BDL
SEP	BDL	BDL	.	.	.	.
OCT	BDL	.120 <T	.050 <T	BDL	.050 <T	BDL
NOV	.090 <T	.030 <T	BDL	.040 <T	BDL	BDL
	BDL	.060 <T	.	.	.	.
DEC	BDL	.030 <T	.030 <T	.030 <T	BDL	BDL
	.060 <T	.060 <T	.	.	.	.
ALUMINUM (UG/L )				DET'N LIMIT = .050		GUIDELINE = 100. (A4)
JAN	25.520	47.560	23.200	24.360	22.040	19.720
FEB	27.840	17.400	19.720	19.720	.	.
MAR	82.360	27.840	30.160	31.320	31.320	33.640
APR	162.400	23.200	.	.	24.360	30.160
MAY	92.800	37.120	51.040	39.440	29.000	232.000
JUN	68.440	74.240	46.400	52.200	68.440	44.080
	162.400	81.200	.	.	.	.
JUL	91.640	95.120	69.600	70.760	56.840	58.000
AUG	62.640	127.600	197.200	139.200	95.120	84.680
SEP	58.000	116.000	.	.	.	.
OCT	91.640	59.160	55.680	52.200	91.640	53.360
NOV	67.280	44.080	33.640	39.440	38.280	29.000
	60.320	33.060	.	.	.	.
DEC	68.440	32.480	29.000	27.840	29.000	25.520
	41.760	25.520	.	.	.	.
ARSENIC (UG/L )				DET'N LIMIT = 0.050		GUIDELINE = 50.0 (A1)
JAN	.650 <T	.240 <T	.310 <T	.250 <T	.270 <T	.260 <T
FEB	.530 <T	.240 <T	.220 <T	.140 <T	.	.
MAR	.490 <T	.110 <T	.120 <T	.180 <T	.180 <T	.150 <T
APR	.490 <T	.300 <T	.	.	.270 <T	.250 <T
MAY	.550 <T	.190 <T	.300 <T	.160 <T	.190 <T	.400 <T
JUN	.410 <T	.180 <T	.390 <T	.310 <T	.220 <T	.250 <T
	.540 <T	.210 <T	.	.	.	.
JUL	BDL	.550 <T	.470 <T	.450 <T	.420 <T	.390 <T
AUG	.760 <T	.380 <T	.530 <T	.450 <T	.410 <T	.380 <T
SEP	.520 <T	.210 <T	.	.	.	.
OCT	.740 <T	.210 <T	.340 <T	.170 <T	.510 <T	.410 <T
NOV	.580 <T	.220 <T	.240 <T	.220 <T	.340 <T	.220 <T

TABLE 5

## DRINKING WATER SURVEILLANCE PROGRAM WALLACEBURG WTP 1988

## WATER TREATMENT PLANT

## DISTRIBUTION SYSTEM

	RAW	TREATED	SITE 1		SITE 2	
			STANDING	FREE FLOW	STANDING	FREE FLOW
NOV	.590 <T	.460 <T	.	.	.	.
DEC	.970 <T	.870 <T	.660 <T	.700 <T	.530 <T	.440 <T
	.650 <T	.720 <T	.	.	.	.
<hr/>						
BARIUM (UG/L)	)		DET'N LIMIT = 0.020		GUIDELINE = 1000. (A1)	
JAN	12.000	12.000	12.000	12.000	12.000	12.000
FEB	13.000	15.000	14.000	14.000	.	.
MAR	12.000	15.000	14.000	14.000	17.000	16.000
APR	14.000	14.000	.	.	15.000	15.000
MAY	15.000	17.000	17.000	17.000	39.000	17.000
JUN	15.000	14.000	16.000	15.000	16.000	16.000
	15.000	16.000	.	.	.	.
JUL	14.000	18.000	18.000	19.000	20.000	18.000
AUG	15.000	17.000	18.000	19.000	18.000	18.000
SEP	15.000	16.000	.	.	.	.
OCT	15.000	16.000	17.000	16.000	17.000	16.000
NOV	15.000	17.000	17.000	17.000	17.000	17.000
	15.000	16.000	.	.	.	.
DEC	16.000	17.000	17.000	17.000	17.000	16.000
	15.000	16.000	.	.	.	.
<hr/>						
BORON (UG/L)	)		DET'N LIMIT = 0.200		GUIDELINE = 5000. (A1)	
JAN	13.000 <T	12.000 <T	23.000	13.000 <T	13.000 <T	13.000 <T
FEB	14.000 <T	19.000 <T	23.000	16.000 <T	.	.
MAR	14.000 <T	20.000	51.000	21.000	19.000 <T	21.000
APR	13.000 <T	15.000 <T	.	.	15.000 <T	15.000 <T
MAY	22.000	19.000 <T	38.000	17.000 <T	20.000 <T	17.000 <T
JUN	15.000 <T	13.000 <T	14.000 <T	14.000 <T	16.000 <T	18.000 <T
	19.000 <T	20.000 <T	.	.	.	.
JUL	19.000 <T	24.000	29.000	19.000 <T	25.000	20.000 <T
AUG	34.000	36.000	41.000	37.000	36.000	30.000
SEP	46.000	45.000	.	.	.	.
OCT	26.000	39.000	48.000	37.000	48.000	33.000
NOV	20.000 <T	23.000	44.000	70.000	67.000	69.000
	55.000	62.500	.	.	.	.
DEC	40.000	42.000	28.000	42.000	31.000	40.000
	41.000	38.000	.	.	.	.
<hr/>						
BERYLLIUM (UG/L)	)		DET'N LIMIT = 0.010		GUIDELINE = .20 (H)	
JAN	BDL	BDL	.010 <T	BDL	BDL	BDL
FEB	.030 <T	.020 <T	.030 <T	.010 <T	.	.
MAR	BDL	BDL	BDL	.030 <T	.010 <T	.020 <T
APR	BDL	BDL	.	.	BDL	BDL
MAY	.040 <T	BDL	BDL	BDL	BDL	BDL
JUN	BDL	BDL	BDL	BDL	BDL	BDL
	.030 <T	.060 <T	.	.	.	.
JUL	BDL	BDL	BDL	BDL	BDL	BDL

TABLE 5

## DRINKING WATER SURVEILLANCE PROGRAM WALLACEBURG WTP 1988

## WATER TREATMENT PLANT

## DISTRIBUTION SYSTEM

	RAW	TREATED	SITE 1		SITE 2	
			STANDING	FREE FLOW	STANDING	FREE FLOW
AUG	BDL	BDL	BDL	BDL	BDL	.030 <T
SEP	.040 <T	.040 <T	.	.	.	.
OCT	.070 <T	.100 <T	.060 <T	BDL	.020 <T	.070 <T
NOV	.050 <T	.120 <T	.100 <T	.200 <T	.160 <T	.110 <T
DEC	.210 <T	.080 <T	.	.	.	.
	BDL	BDL	BDL	.030 <T	.030 <T	.050 <T
	.110 <T	.100 <T	.	.	.	.
<hr/>						
CADMIUM (UG/L )			DET'N LIMIT = 0.050		GUIDELINE = 5.000 (A1)	
JAN	BDL	BDL	.120 <T	BDL	BDL	BDL
FEB	BDL	BDL	.100 <T	BDL	.	.
MAR	BDL	BDL	BDL	BDL	.060 <T	BDL
APR	BDL	BDL	.	.	BDL	BDL
MAY	BDL	BDL	.120 <T	BDL	.060 <T	BDL
JUN	BDL	BDL	.070 <T	BDL	.130 <T	BDL
	BDL	BDL	.	.	.	.
JUL	BDL	BDL	.080 <T	BDL	BDL	BDL
AUG	BDL	BDL	.290 <T	BDL	BDL	BDL
SEP	BDL	BDL	.	.	.	.
OCT	BDL	BDL	BDL	BDL	BDL	BDL
NOV	BDL	BDL	BDL	.070 <T	BDL	BDL
DEC	BDL	BDL	.	.	.	.
	BDL	BDL	BDL	BDL	BDL	BDL
	BDL	BDL	.	.	.	.
<hr/>						
COBALT (UG/L )			DET'N LIMIT = 0.020		GUIDELINE = 1000 (H)	
JAN	.230 <T	.230 <T	.240 <T	.200 <T	.220 <T	.220 <T
FEB	.070 <T	.030 <T	.030 <T	.030 <T	.	.
MAR	.180 <T	.100 <T	.080 <T	.100 <T	.070 <T	.040 <T
APR	.230 <T	.050 <T	.	.	.050 <T	.050 <T
MAY	.110 <T	.060 <T	.170 <T	.100 <T	.090 <T	.130 <T
JUN	.100 <T	.070 <T	.100 <T	.080 <T	.150 <T	.080 <T
	.080 <T	BDL	.	.	.	.
JUL	.180 <T	.100 <T	.100 <T	.090 <T	.230 <T	.100 <T
AUG	.190 <T	.100 <T	.180 <T	.120 <T	.120 <T	.130 <T
SEP	.130 <T	.070 <T	.	.	.	.
OCT	.230 <T	.170 <T	.170 <T	.200 <T	.170 <T	.200 <T
NOV	.150 <T	.080 <T	.080 <T	.080 <T	.090 <T	.070 <T
DEC	.170 <T	.050 <T	.	.	.	.
	.260 <T	.160 <T	.160 <T	.130 <T	.210 <T	.280 <T
	.180 <T	.160 <T	.	.	.	.
<hr/>						
CHROMIUM (UG/L )			DET'N LIMIT = 0.100		GUIDELINE = 50. (A1)	
JAN	.750 <T	.330 <T	.340 <T	.320 <T	.300 <T	.290 <T
FEB	.310 <T	.260 <T	2.900	.260 <T	.	.
MAR	.430 <T	.280 <T	.320 <T	.370 <T	.240 <T	.220 <T
APR	.880 <T	.450 <T	.	.	.470 <T	.520 <T

TABLE 5

## DRINKING WATER SURVEILLANCE PROGRAM WALLACEBURG WTP 1988

## WATER TREATMENT PLANT

## DISTRIBUTION SYSTEM

	RAW	TREATED	SITE 1		SITE 2	
			STANDING	FREE FLOW	STANDING	FREE FLOW
MAY	1.500	1.100	.460 <T	.540 <T	1.100	.580 <T
JUN	2.200	1.400	.170 <T	BDL	.210 <T	.650 <T
	3.600	3.800	.	.	.	.
JUL	3.000	4.900	.260 <T	2.200	4.800	3.000
AUG	2.800	2.500	2.300	2.300	2.400	1.700
SEP	3.900	3.200	.	.	.	.
OCT	3.000	5.600	5.400	5.000	4.400	4.000
NOV	.840 <T	.900 <T	3.000	5.800	5.100	5.400
	4.100	4.700	.	.	.	.
DEC	4.900	4.800	1.600	4.700	3.000	4.500
	3.900	3.600	.	.	.	.
<hr/>						
COPPER (UG/L )			DET'N LIMIT = .100		GUIDELINE = 1000 (A3)	
JAN	2.400	.730 <T	80.000	17.000	17.000	6.200
FEB	2.700	.890 <T	85.000	3.000	.	.
MAR	2.600	.850 <T	110.000	20.000	38.000	10.000
APR	2.400	1.100	.	.	35.000	11.000
MAY	3.200	1.300	82.000	4.500	34.000	15.000
JUN	2.700	1.500	78.000	10.000	30.000	4.800
	3.300	1.500	.	.	.	.
JUL	2.400	1.000 <T	60.000	4.100	48.000	11.000
AUG	2.500	1.700	200.000	18.000	8.600	7.000
SEP	2.700	.990 <T	.	.	.	.
OCT	2.800	1.100	65.000	4.100	40.000	18.000
NOV	2.500	.990 <T	19.000	79.000	9.700	6.900
	2.500	1.380	.	.	.	.
DEC	2.600	.960 <T	71.000	20.000	33.000	8.600
	1.800	.820 <T	.	.	.	.
<hr/>						
IRON (UG/L )			DET'N LIMIT = 4.000		GUIDELINE = 300. (A3)	
JAN	31.000 <T	7.400 <T	88.000	86.000	67.000	43.000
FEB	47.000	7.900 <T	100.000	69.000	.	.
MAR	110.000	6.100 <T	64.000	130.000	87.000	100.000
APR	300.000	14.000 <T	.	.	88.000	96.000
MAY	110.000	9.100 <T	330.000	270.000	55.000	420.000
JUN	94.000	10.000 <T	75.000	68.000	160.000	28.000 <T
	120.000	11.000 <T	.	.	.	.
JUL	150.000	BDL	99.000	99.000	26.000 <T	14.000 <T
AUG	120.000	BDL	660.000	370.000	53.000	39.000 <T
SEP	110.000	6.100 <T	.	.	.	.
OCT	100.000	BDL	130.000	93.000	150.000	43.000 <T
NOV	80.000	6.500 <T	60.000	73.000	76.000	22.000 <T
	50.000 <T	BDL	.	.	.	.
DEC	120.000	6.800 <T	150.000	94.000	53.000	50.000 <T
	66.000	23.000 <T	.	.	.	.
<hr/>						
MERCURY (UG/L )			DET'N LIMIT = 0.010		GUIDELINE = 1.000 (A1)	
JAN	.040	.040	.	.040	.	.020

TABLE 5

## DRINKING WATER SURVEILLANCE PROGRAM WALLACEBURG WTP 1988

## WATER TREATMENT PLANT

## DISTRIBUTION SYSTEM

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM			
	RAW	TREATED	SITE 1		SITE 2	
			STANDING	FREE FLOW	STANDING	FREE FLOW
FEB	BDL	.050	.	.010	.	.
MAR	BDL	BDL	.	BDL	.	BDL
APR	.010	BDL	.	.	.	BDL
MAY	BDL	BDL	.	BDL	.	BDL
JUN	BDL	BDL	.	BDL	.	BDL
	BDL	.020 <T	.	.	.	.
JUL	.030 <T	.020 <T	.	.020 <T	.	.020 <T
AUG	.020 <T	.030 <T	.	.030 <T	.	BDL
SEP	BDL	.	.	.	.	.
OCT	.020 <T	.330	.	BDL	.	BDL
NOV	.020 <T	.020 <T	.	BDL	.	BDL
	BDL	BDL	.	.	.	.
DEC	.020 <T	.020 <T	.	BDL	.	BDL
	BDL	BDL	.	.	.	.
<hr/>						
MANGANESE (UG/L )		DET'N LIMIT = .050		GUIDELINE = 50.0 (A3)		
JAN	1.600	.660	4.500	4.600	6.500	2.900
FEB	2.200	.220 <T	5.500	4.500	.	.
MAR	4.100	.580	3.700	9.300	7.800	16.000
APR	9.100	.280 <T	.	.	9.300	14.000
MAY	4.600	.360 <T	25.000	18.000	3.300	62.000
JUN	4.900	.650	3.500	3.600	8.600	2.800
	6.100	.490 <T	.	.	.	.
JUL	5.400	.440 <T	8.700	8.600	12.000	3.200
AUG	4.200	.290 <T	47.000	31.000	7.100	4.900
SEP	4.400	.330 <T	.	.	.	.
OCT	4.600	.270 <T	9.600	9.200	20.000	5.700
NOV	3.000	.300 <T	5.200	5.300	9.100	2.400
	2.500	.280 <T	.	.	.	.
DEC	5.300	.310 <T	13.000	7.200	5.200	4.100
	2.600	.360 <T	.	.	.	.
<hr/>						
MOLYBDENUM (UG/L )		DET'N LIMIT = 0.020		GUIDELINE = 500 (H)		
JAN	.480 <T	.440 <T	.440 <T	.420 <T	.370 <T	.440 <T
FEB	.490 <T	.470 <T	.450 <T	.460 <T	.	.
MAR	.430 <T	.660	.570	.590	.690	.660
APR	.380 <T	.510	.	.	.400 <T	.370 <T
MAY	.500 <T	.580	.500 <T	.520	.580	.430 <T
JUN	.520	.530	.560	.540	.540	.540
	.540	.610	.	.	.	.
JUL	.420 <T	.620	.570	.600	.630	.580
AUG	.510	.460 <T	.580	.520	.480 <T	.500 <T
SEP	.440 <T	.570	.	.	.	.
OCT	.430 <T	.530	.400 <T	.500 <T	.530	.460 <T
NOV	.520	.630	.640	.530	.580	.610
	.510	.560	.	.	.	.
DEC	.440 <T	.520	.450 <T	.520	.470 <T	.470 <T
	.510	.640	.	.	.	.

TABLE 5

## DRINKING WATER SURVEILLANCE PROGRAM WALLACEBURG WTP 1988

## WATER TREATMENT PLANT

## DISTRIBUTION SYSTEM

	RAW	TREATED	SITE 1		SITE 2	
			STANDING	FREE FLOW	STANDING	FREE FLOW
NICKEL (UG/L )			DET'N LIMIT = 0.100		GUIDELINE = 50. (F3)	
JAN	2.900	2.900	3.500	2.900	2.900	3.000
FEB	.120 <T	BDL	.510 <T	BDL	.	.
MAR	1.300 <T	.630 <T	.420 <T	.730 <T	.790 <T	1.200 <T
APR	.850 <T	.250 <T	.	.	.710 <T	1.600
MAY	BDL	BDL	11.000	BDL	BDL	BDL
JUN	.590 <T	.200 <T	1.200 <T	.220 <T	3.500	.130 <T
	.400 <T	.220 <T	.	.	.	.
JUL	BDL	.750 <T	1.200 <T	.750 <T	1.600 <T	.800 <T
AUG	.980 <T	.740 <T	1.200 <T	.400 <T	.480 <T	.890 <T
SEP	BDL	BDL	.	.	.	.
OCT	1.200 <T	1.100 <T	1.300 <T	.890 <T	14.000	1.000 <T
NOV	.620 <T	.370 <T	.260 <T	1.300 <T	.410 <T	1.700 <T
	BDL	BDL	.	.	.	.
DEC	1.600 <T	1.400 <T	1.800 <T	1.500 <T	1.700 <T	2.600
	.590 <T	.520 <T	.	.	.	.
LEAD (UG/L )			DET'N LIMIT = 0.050		GUIDELINE = 50. (A1)	
JAN	.250	.050 <T	1.900	.640	.210	.050 <T
FEB	.310	.090 <T	2.200	.040 <T	.	.
MAR	.250	.060 <T	2.600	.850	.600	.210
APR	.510	.100 <T	.	.	1.000	.180 <T
MAY	.360	.060 <T	6.300	.100 <T	.460	.820
JUN	.490	.160 <T	6.100	.250	2.400	.270
	.660	.260	.	.	.	.
JUL	.480	.140 <T	4.800	.120 <T	1.900	.320
AUG	.460	.360	34.000	1.700	.550	.240
SEP	.420	.380	.	.	.	.
OCT	.630	.190 <T	3.100	.130 <T	2.000	.810
NOV	.410	.160 <T	3.000	3.500	.370	.310
	.280	.080 <T	.	.	.	.
DEC	.480	.060 <T	3.100	1.300	3.400	.470
	.650	.090 <T	.	.	.	.
ANTIMONY (UG/L )			DET'N LIMIT = .050		GUIDELINE = 146. (D4)	
JAN	.100 <T	.110 <T	.110 <T	.110 <T	.120 <T	.110 <T
FEB	.120 <T	.120 <T	.170 <T	.130 <T	.	.
MAR	.100 <T	.140 <T	.140 <T	.170 <T	.170 <T	.150 <T
APR	.080 <T	.120 <T	.	.	.120 <T	.110 <T
MAY	.170 <T	.150 <T	.250	.140 <T	.190 <T	.180 <T
JUN	.140 <T	.130 <T	.190 <T	.110 <T	.160 <T	.110 <T
	.150 <T	.140 <T	.	.	.	.
JUL	.550	.530	.690	.690	1.000	.580
AUG	.580	.470	.730	.670	.820	.750
SEP	.350	.440	.	.	.	.
OCT	.460	.530	.620	.610	.650	.610
NOV	.430	.480	.560	.570	.530	.590
	.220	.320	.	.	.	.

TABLE 5

## DRINKING WATER SURVEILLANCE PROGRAM WALLACEBURG WTP 1988

## WATER TREATMENT PLANT

## DISTRIBUTION SYSTEM

	RAW	TREATED	SITE 1		SITE 2	
			STANDING	FREE FLOW	STANDING	FREE FLOW
DEC	.360 .440	.330 .570	.350 .	.330 .	.360 .	.530 .
<hr/>						
SELENIUM (UG/L )			DET'N LIMIT = 0.200		GUIDELINE = 10. (A1)	
JAN	.230 <T	.410 <T	.300 <T	BDL	.450 <T	.230 <T
FEB	.960 <T	1.200 <T	1.100 <T	.690 <T	.	.
MAR	.720 <T	1.500 <T	1.900 <T	2.200 <T	1.600 <T	1.700 <T
APR	1.300 <T	1.300 <T	.	.	1.600 <T	1.600 <T
MAY	.640 <T	1.600 <T	1.200 <T	2.100 <T	2.400 <T	1.600 <T
JUN	.220 <T	1.400 <T	BDL	BDL	.690 <T	.250 <T
	.330 <T	.770 <T	.	.	.	.
JUL	2.600 <T	1.900 <T	1.500 <T	1.000 <T	2.000 <T	1.500 <T
AUG	1.600 <T	2.200 <T	2.100 <T	1.800 <T	1.100 <T	1.200 <T
SEP	8.300 <T	8.600 <T	.	.	.	.
OCT	.630 <T	4.300 <T	4.600 <T	2.800 <T	4.700 <T	3.400 <T
NOV	BDL	.700 <T	1.600 <T	2.100 <T	1.800 <T	2.800 <T
	.700 <T	3.050 <T	.	.	.	.
DEC	1.200 <T	3.500 <T	3.700 <T	4.200 <T	3.900 <T	3.500 <T
	.210 <T	1.900 <T	.	.	.	.
<hr/>						
STRONTIUM (UG/L )			DET'N LIMIT = .050		GUIDELINE = 2000.(H)	
JAN	94.000	93.000	96.000	91.000	93.000	96.000
FEB	100.000	110.000	110.000	100.000	.	.
MAR	91.000	100.000	93.000	100.000	120.000	110.000
APR	94.000	100.000	.	.	100.000	110.000
MAY	110.000	120.000	120.000	120.000	120.000	120.000
JUN	110.000	110.000	120.000	120.000	120.000	120.000
	110.000	120.000	.	.	.	.
JUL	110.000	120.000	120.000	120.000	130.000	120.000
AUG	100.000	100.000	110.000	120.000	110.000	120.000
SEP	100.000	110.000	.	.	.	.
OCT	100.000	110.000	110.000	110.000	110.000	100.000
NOV	100.000	110.000	110.000	110.000	110.000	110.000
	100.000	102.000	.	.	.	.
DEC	100.000	100.000	100.000	100.000	110.000	100.000
	96.000	100.000	.	.	.	.
<hr/>						
TITANIUM (UG/L )			DET'N LIMIT = .050		GUIDELINE = N/A	
JAN	3.600	3.300	3.400	3.300	3.200	3.200
FEB	4.300	3.500	3.900	3.900	.	.
MAR	4.000	2.900	3.700	3.200	3.100	2.700
APR	7.000	3.300	.	.	3.200	3.000
MAY	9.300	5.900	6.800	6.200	6.300	7.200
JUN	16.000	1.400 <T	2.900	2.800	3.200	2.700
	8.200	1.500 <T	.	.	.	.
JUL	4.400	1.700 <T	1.900 <T	1.600 <T	1.700 <T	1.700 <T
AUG	6.300	5.000	5.800	5.500	5.700	5.800

TABLE 5

## DRINKING WATER SURVEILLANCE PROGRAM WALLACEBURG WTP 1988

## WATER TREATMENT PLANT

## DISTRIBUTION SYSTEM

	RAW	TREATED	SITE 1		SITE 2	
			STANDING	FREE FLOW	STANDING	FREE FLOW
SEP	6.100	4.800	.	.	.	.
OCT	6.300	2.700	3.200	3.300	4.100	3.100
NOV	5.700	4.500	4.100	4.400	4.300	4.600
	8.600	6.260	.	.	.	.
DEC	5.700	4.200	3.800	4.000	4.200	4.000
	5.900	5.300	.	.	.	.
<hr/>						
THALLIUM (UG/L )			DET'N LIMIT = .010		GUIDELINE = 13. (D4)	
JAN	.020 <T	.010 <T	.010 <T	.010 <T	BDL	BDL
FEB	.010 <T	.010 <T	BDL	BDL	.	.
MAR	.010 <T	BDL	.010 <T	.020 <T	.020 <T	BDL
APR	.020 <T	BDL	.	.	BDL	BDL
MAY	BDL	.020 <T	.020 <T	BDL	BDL	BDL
JUN	BDL	BDL	.020 <T	BDL	BDL	BDL
	BDL	.020 <T	.	.	.	.
JUL	BDL	BDL	.020 <T	BDL	BDL	BDL
AUG	BDL	BDL	.040 <T	BDL	BDL	BDL
SEP	BDL	BDL	.	.	.	.
OCT	.020 <T	BDL	BDL	BDL	.020 <T	BDL
NOV	.020 <T	.020 <T	BDL	.020 <T	.020 <T	BDL
	.020 <T	BDL	.	.	.	.
DEC	BDL	BDL	BDL	BDL	BDL	BDL
	.050 <T	.060 <T	.	.	.	.
<hr/>						
URANIUM (UG/L )			DET'N LIMIT = .020		GUIDELINE = 20. (A2)	
JAN	.210	.070 <T	.040 <T	.050 <T	.050 <T	.060 <T
FEB	.260	.070 <T	.090 <T	.060 <T	.	.
MAR	.260	.090 <T	.080 <T	.140 <T	.110 <T	.070 <T
APR	.250	.050 <T	.	.	.050 <T	BDL
MAY	.250	.070 <T	.100 <T	.050 <T	.070 <T	.080 <T
JUN	.220	.070 <T	.090 <T	.060 <T	.070 <T	.080 <T
	.270	.080 <T	.	.	.	.
JUL	.210	.090 <T	.060 <T	.070 <T	.070 <T	.060 <T
AUG	.240	.270	.080 <T	.090 <T	.090 <T	.070 <T
SEP	.210	.050 <T	.	.	.	.
OCT	.260	.080 <T	.080 <T	.050 <T	.080 <T	.060 <T
NOV	.270	.120 <T	.050 <T	.070 <T	.080 <T	.070 <T
	.200 <T	.070 <T	.	.	.	.
DEC	.240	.090 <T	.050 <T	.070 <T	.090 <T	.040 <T
	.340	.180 <T	.	.	.	.
<hr/>						
VANADIUM (UG/L )			DET'N LIMIT = .050		GUIDELINE = 100 (H)	
JAN	.320 <T	.510	.400	.430	.330 <T	.360 <T
FEB	.250 <T	.450	.390 <T	.390 <T	.	.
MAR	.340 <T	.500	.380 <T	.480	.330 <T	.360 <T
APR	.660	.500	.	.	.460	.
MAY	.390 <T	.440 <T	.510	.370 <T	.330 <T	1.700



TABLE 5

## DRINKING WATER SURVEILLANCE PROGRAM WALLACEBURG WTP 1988

## WATER TREATMENT PLANT

## DISTRIBUTION SYSTEM

	RAW	TREATED	SITE 1		SITE 2	
			STANDING	FREE FLOW	STANDING	FREE FLOW
JUN	.380 <T .570	.470 <T .630	.330 <T .	.360 <T .	.780 .	.340 <T .
JUL	.440 <T	.680	.550	.520	.520	.480 <T
AUG	.390 <T	.720	1.600	.740	.650	.540
SEP	.410 <T	.700	.	.	.	.
OCT	.450 <T	.710	.580	.560	.980	.540
NOV	.430 <T .360 <T	.620 .580	.530 .	.410 <T .	.520 .	.420 <T .
DEC	.400 <T .380 <T	.590 .570	.430 <T .	.440 <T .	.450 <T .	.400 <T .
ZINC (UG/L )						
			DET'N LIMIT = .001		GUIDELINE = 5000. (A3)	
JAN	1.600	3.000	37.000	3.200	4.800	2.700
FEB	1.900	5.200	42.000	1.100	.	.
MAR	2.000	4.200	56.000	3.800	5.900	8.100
APR	3.000	6.900	.	.	22.000	6.600
MAY	2.200	4.600	68.000	1.500	6.200	5.200
JUN	2.000	9.700	51.000	3.600	10.000	1.900
	2.600	12.000	.	.	.	.
JUL	1.300	3.600	20.000	1.100	15.000	2.100
AUG	2.000	17.000	38.000	5.100	4.100	4.700
SEP	2.100	16.000	.	.	.	.
OCT	2.300	9.000	21.000	1.100	21.000	5.900
NOV	2.000	5.200	3.600	34.000	6.200	7.000
	1.300	2.990	.	.	.	.
DEC	2.000	7.100	30.000	3.300	87.000	13.000
	1.600	2.700	.	.	.	.

TABLE 5

## DRINKING WATER SURVEILLANCE PROGRAM WALLACEBURG WTP 1988

## WATER TREATMENT PLANT

## DISTRIBUTION SYSTEM

RAW		TREATED	SITE 1		SITE 2	
			STANDING	FREE FLOW	STANDING	FREE FLOW
-----						
CHLOROAROMATICS						
HEXACHLOROBUTADIENE (NG/L )			DET'N LIMIT = 1.000		GUIDELINE = 450 (D4)	
JAN	BDL	BDL	.	BDL	.	BDL
FEB	BDL	BDL	.	BDL	.	.
MAR	BDL	BDL	.	BDL	.	BDL
APR	BDL	BDL	.	.	.	BDL
MAY	BDL	BDL	.	BDL	.	BDL
JUN	BDL	BDL	.	BDL	.	BDL
	BDL	BDL	.	.	.	.
JUL	BDL	BDL	.	BDL	.	BDL
AUG	BDL	BDL	.	BDL	.	BDL
SEP	1.000 <T	BDL	.	.	.	.
OCT	BDL	BDL	.	BDL	.	BDL
NOV	BDL	BDL	.	BDL	.	BDL
	BDL	BDL	.	.	.	.
DEC	BDL	BDL	.	BDL	.	BDL
	IQU	IQU	.	.	.	.
-----						
HEXACHLOROETHANE (NG/L )			DET'N LIMIT = 1.000		GUIDELINE = 1900 (D4)	
JAN	BDL	BDL	.	BDL	.	BDL
FEB	BDL	BDL	.	BDL	.	.
MAR	BDL	BDL	.	BDL	.	BDL
APR	BDL	BDL	.	.	.	BDL
MAY	BDL	BDL	.	BDL	.	BDL
JUN	BDL	BDL	.	BDL	.	1.000 <T
	BDL	BDL	.	.	.	.
JUL	BDL	BDL	.	BDL	.	BDL
AUG	BDL	BDL	.	BDL	.	BDL
SEP	BDL	BDL	.	.	.	.
OCT	BDL	BDL	.	BDL	.	BDL
NOV	BDL	BDL	.	BDL	.	BDL
	BDL	BDL	.	.	.	.
DEC	BDL	BDL	.	BDL	.	BDL
	IQU	IQU	.	.	.	.

TABLE 5

## DRINKING WATER SURVEILLANCE PROGRAM WALLACEBURG WTP 1988

## WATER TREATMENT PLANT

## DISTRIBUTION SYSTEM

RAW		TREATED	SITE 1		SITE 2	
			STANDING	FREE FLOW	STANDING	FREE FLOW
-----						
PESTICIDES & PCB						
ALPHA BHC (NG/L )			DET'N LIMIT = 1.000		GUIDELINE = 700 (G)	
JAN	2.000 <T	BDL	.	1.000 <T	.	1.000 <T
FEB	2.000 <T	BDL	.	BDL	.	.
MAR	2.000 <T	BDL	.	BDL	.	BDL
APR	2.000 <T	BDL	.	.	.	BDL
MAY	2.000 <T	1.000 <T	.	1.000 <T	.	BDL
JUN	2.000 <T	2.000 <T	.	2.000 <T	.	2.000 <T
	3.000 <T	BDL	.	.	.	.
JUL	2.000 <T	2.000 <T	.	BDL	.	BDL
AUG	BDL	BDL	.	BDL	.	BDL
SEP	2.000 <T	2.000 <T	.	.	.	.
OCT	2.000 <T	1.000 <T	.	BDL	.	BDL
NOV	2.000 <T	BDL	.	BDL	.	BDL
	BDL	BDL	.	.	.	.
DEC	2.000 <T	BDL	.	BDL	.	BDL
	1QU	1QU	.	.	.	.

TABLE 5

## DRINKING WATER SURVEILLANCE PROGRAM WALLACEBURG WTP 1988

## WATER TREATMENT PLANT

## DISTRIBUTION SYSTEM

RAW		TREATED	SITE 1		SITE 2	
			STANDING	FREE FLOW	STANDING	FREE FLOW
<hr/>						
PHENOLICS			DET'N LIMIT = 0.2		GUIDELINE = 2.00 (A3)	
PHENOLICS (UG/L )						
JAN	1.000 <T	BDL	.	.	.	.
FEB	BDL	BDL	.	.	.	.
MAR	BDL	BDL	.	.	.	.
APR	BDL	BDL	.	.	.	.
MAY	BDL	BDL	.	.	.	.
JUN	1.000 <T	.200 <T	.	.	.	.
	.400 <T	BDL	.	.	.	.
JUL	.800 <T	.200 <T	.	.	.	.
AUG	1.700	1.000	.	.	.	.
SEP	BDL	BDL	.	.	.	.
OCT	.400 <T	BDL	.	.	.	.
NOV	.600	.600	.	.	.	.
	.600 <T	.600 <T	.	.	.	.
DEC	.600 <T	!!S	.	.	.	.
	1.000	.600 <T	.	.	.	.

TABLE 5

## DRINKING WATER SURVEILLANCE PROGRAM WALLACEBURG WTP 1988

## WATER TREATMENT PLANT

## DISTRIBUTION SYSTEM

RAW		TREATED	SITE 1		SITE 2	
			STANDING	FREE FLOW	STANDING	FREE FLOW
<hr/>						
VOLATILES			DET'N LIMIT = .050		GUIDELINE = 5.0 (B1)	
BENZENE (UG/L )						
JAN	BDL	.700	.	.600	.	.550
MAR	BDL	.400 <T	.	.400 <T	.	.400 <T
APR	BDL	.500 <T	.	.	.	.450 <T
MAY	.150 <T	.050 <T	.	.050 <T	.	.100 <T
JUN	BDL	.100 <T	.	.050 <T	.	.050 <T
	.100 <T	BDL	.	.	.	.
JUL	.100 <T	BDL	.	.050 <T	.	.100 <T
AUG	BDL	BDL	.	.050 <T	.	BDL
SEP	BDL	BDL	.	.	.	.
OCT	.350 <T	.200 <T	.	.200 <T	.	.200 <T
NOV	.150 <T	.100 <T	.	.150 <T	.	.150 <T
	.050 <T	.050 <T	.	.	.	.
DEC	.150 <T	BDL	.	BDL	.	BDL
	.400 <T	.100 <T	.	.	.	.
<hr/>						
TOLUENE (UG/L )			DET'N LIMIT = .050		GUIDELINE = 24.0 (B4)	
JAN	BDL	.300 <T	.	.200 UCS	.	.200 UCS
MAR	BDL	.050 UCS	.	BDL	.	.050 UCS
APR	BDL	BDL	.	.	.	BDL
MAY	.150 UCS	BDL	.	BDL	.	.100 UCS
JUN	BDL	.200 <T	.	.150 <T	.	.150 <T
	.200 <T	.100 <T	.	.	.	.
JUL	BDL	.050 <T	.	.100 <T	.	.200 <T
AUG	BDL	.150 <T	.	.150 <T	.	.100 <T
SEP	BDL	BDL	.	.	.	.
OCT	.050 <T	.050 <T	.	BDL	.	.050 <T
NOV	BDL	BDL	.	BDL	.	BDL
	BDL	BDL	.	.	.	.
DEC	BDL	BDL	.	BDL	.	BDL
	BDL	BDL	.	.	.	.
<hr/>						
ETHYLBENZENE (UG/L )			DET'N LIMIT = .050		GUIDELINE = 2.4 (B4)	
JAN	.050 <T	BDL	.	.050 <T	.	.050 <T
MAR	BDL	BDL	.	.050 <T	.	.050 <T
APR	BDL	BDL	.	.	.	BDL
MAY	.150 <T	.100 <T	.	BDL	.	.050 <T
JUN	BDL	.200 <T	.	.200 <T	.	.100 <T
	.050 <T	.050 <T	.	.	.	.
JUL	BDL	.150 <T	.	.200 <T	.	.250 <T
AUG	BDL	.150 <T	.	.250 <T	.	.100 <T
SEP	BDL	BDL	.	.	.	.
OCT	BDL	BDL	.	BDL	.	BDL
NOV	BDL	BDL	.	BDL	.	BDL
	.050 <T	BDL	.	.	.	.
DEC	BDL	BDL	.	BDL	.	BDL
	BDL	.050 <T	.	.	.	.

TABLE 5

## DRINKING WATER SURVEILLANCE PROGRAM WALLACEBURG WTP 1988

## WATER TREATMENT PLANT

## DISTRIBUTION SYSTEM

	RAW	TREATED	SITE 1		SITE 2	
			STANDING	FREE FLOW	STANDING	FREE FLOW
P-XYLENE (UG/L )			DET'N LIMIT = .100		GUIDELINE = 300 (B4)	
JAN	BDL	BDL	.	BDL	.	BDL
MAR	BDL	BDL	.	BDL	.	BDL
APR	BDL	BDL	.	.	.	BDL
MAY	.	BDL	.	BDL	.	BDL
JUN	BDL .200	.100 BDL	.	.100	.	.100
JUL	BDL	BDL	.	.	.	.
AUG	BDL	BDL	.	BDL	.	BDL
SEP	BDL	BDL	.	BDL	.	BDL
OCT	BDL	BDL	.	BDL	.	BDL
NOV	BDL	BDL	.	BDL	.	BDL
DEC	BDL BDL	BDL BDL	.	BDL .	.	BDL .
M-XYLENE (UG/L )			DET'N LIMIT = .100		GUIDELINE = 300 (B4)	
JAN	BDL	BDL	.	BDL	.	BDL
MAR	BDL	BDL	.	BDL	.	BDL
APR	BDL	BDL	.	.	.	BDL
MAY	.200 <T	BDL	.	BDL	.	BDL
JUN	BDL .200 <T	.100 <T BDL	.	.100 <T	.	.100 <T
JUL	BDL	.100 <T	.	.	.	.
AUG	BDL	.200 <T	.	.200 <T	.	.300 <T
SEP	BDL	BDL	.	.300 <T	.	.100 <T
OCT	BDL	BDL	.	.	.	.
NOV	BDL	BDL	.	BDL	.	BDL
DEC	BDL BDL	BDL BDL	.	BDL .	.	BDL .
O-XYLENE (UG/L )			DET'N LIMIT = .050		GUIDELINE = 300 (B4)	
JAN	.050 <T	BDL	.	BDL	.	BDL
MAR	BDL	BDL	.	BDL	.	BDL
APR	BDL	BDL	.	.	.	BDL
MAY	BDL	BDL	.	BDL	.	BDL
JUN	BDL .100 <T	.100 <T BDL	.	BDL	.	.050 <T
JUL	BDL	BDL	.	.	.	.
AUG	BDL	.100 <T	.	.100 <T	.	.150 <T
SEP	BDL	BDL	.	.100 <T	.	.050 <T
OCT	BDL	BDL	.	.	.	.
NOV	BDL	BDL	.	BDL	.	BDL
DEC	BDL BDL	BDL BDL	.	BDL .	.	BDL .

TABLE 5

## DRINKING WATER SURVEILLANCE PROGRAM WALLACEBURG WTP 1988

## WATER TREATMENT PLANT

## DISTRIBUTION SYSTEM

RAW		TREATED	SITE 1		SITE 2	
			STANDING	FREE FLOW	STANDING	FREE FLOW
STYRENE (UG/L )			DET'N LIMIT = .050		GUIDELINE = 46.5 (D2)	
OCT	.050 <T	BDL	.	.100 <T	.	.100 <T
NOV	.050 <T	BDL	.	.100 <T	.	.050 <T
	.100 <T	BDL	.	.	.	.
DEC	BDL	BDL	.	BDL	.	BDL
	.150 <T	BDL	.	.	.	.
METHYLENE CHLORIDE (UG/L )			DET'N LIMIT = .500		GUIDELINE = 1750 (D3)	
JAN	BDL	.000 SPS	.	BDL	.	BDL
MAR	BDL	BDL	.	BDL	.	BDL
APR	BDL	BDL	.	.	.	BDL
MAY	BDL	BDL	.	BDL	.	BDL
JUN	BDL	BDL	.	BDL	.	BDL
	BDL	BDL	.	.	.	.
JUL	BDL	BDL	.	BDL	.	BDL
AUG	BDL	BDL	.	BDL	.	BDL
SEP	BDL	BDL	.	.	.	.
OCT	BDL	BDL	.	BDL	.	BDL
NOV	BDL	BDL	.	BDL	.	BDL
	BDL	BDL	.	.	.	.
DEC	BDL	BDL	.	BDL	.	BDL
	BDL	BDL	.	.	.	.
CHLOROFORM (UG/L )			DET'N LIMIT = .100		GUIDELINE = 350 (A1+)	
JAN	BDL	18.800	.	11.200	.	15.000
MAR	BDL	21.400	.	14.600	.	12.400
APR	BDL	17.100	.	.	.	8.400
MAY	BDL	11.100	.	8.600	.	8.800
JUN	BDL	13.000	.	8.600	.	8.400
	BDL	8.300	.	.	.	.
JUL	BDL	10.000	.	11.600	.	14.000
AUG	.200 <T	11.100	.	8.300	.	13.900
SEP	BDL	8.900	.	.	.	.
OCT	BDL	12.400	.	4.700	.	7.800
NOV	.100 <T	10.900	.	4.500	.	6.200
	BDL	6.800	.	.	.	.
DEC	BDL	6.800	.	2.700	.	5.400
	BDL	12.200	.	.	.	.
111, TRICHLOROETHANE (UG/L )			DET'N LIMIT = .020		GUIDELINE = 200 (D1)	
JAN	BDL	BDL	.	BDL	.	.200 <T
MAR	BDL	BDL	.	BDL	.	.160 <T
APR	.200 <T	BDL	.	.	.	.100 <T
MAY	BDL	BDL	.	BDL	.	BDL
JUN	BDL	BDL	.	BDL	.	BDL
	BDL	BDL	.	.	.	.
JUL	BDL	BDL	.	BDL	.	BDL

TABLE 5

## DRINKING WATER SURVEILLANCE PROGRAM WALLACEBURG WTP 1988

## WATER TREATMENT PLANT

## DISTRIBUTION SYSTEM

	RAW	TREATED	SITE 1		SITE 2	
			STANDING	FREE FLOW	STANDING	FREE FLOW
AUG	BDL	BDL	.	BDL	.	BDL
SEP	BDL	BDL	.	.	.	.
OCT	BDL	BDL	.	.100 <T	.	BDL
NOV	BDL	BDL	.	BDL	.	BDL
DEC	BDL	BDL	.	.	.	.
	BDL	BDL	.	BDL	.	BDL
1,2 DICHLOROETHANE (UG/L )			DET'N LIMIT = .050		GUIDELINE = 5.0 (D1)	
JAN	BDL	BDL	.	.150 <T	.	BDL
MAR	BDL	BDL	.	BDL	.	BDL
APR	BDL	BDL	.	.	.	BDL
MAY	BDL	BDL	.	BDL	.	BDL
JUN	BDL	BDL	.	BDL	.	BDL
	BDL	BDL	.	.	.	.
	BDL	BDL	.	BDL	.	BDL
JUL	BDL	BDL	.	BDL	.	BDL
AUG	BDL	BDL	.	BDL	.	BDL
SEP	BDL	BDL	.	.	.	.
OCT	BDL	BDL	.	BDL	.	BDL
NOV	BDL	BDL	.	BDL	.	BDL
DEC	BDL	BDL	.	.	.	.
	BDL	BDL	.	BDL	.	BDL
DICHLOROBROMOMETHANE (UG/L )			DET'N LIMIT = .050		GUIDELINE = 350 (A1+)	
JAN	BDL	9.000	.	7.300 SPS	.	8.700
MAR	BDL	10.200	.	9.400	.	8.500
APR	BDL	13.700	.	.	.	11.000
MAY	BDL	9.050	.	7.850	.	7.450
JUN	BDL	10.800	.	9.350	.	7.750
	BDL	7.500	.	.	.	.
	BDL	7.600	.	8.600	.	8.600
AUG	.150 <T	8.850	.	7.150	.	10.400
SEP	BDL	7.200	.	.	.	.
OCT	BDL	9.600	.	8.150	.	9.700
NOV	BDL	9.100	.	6.800	.	7.900
DEC	BDL	7.550	.	.	.	.
	BDL	6.800	.	4.750	.	8.000
	BDL	7.800	.	.	.	.
CHLORODIBROMOMETHANE (UG/L )			DET'N LIMIT = .100		GUIDELINE = 350 (A1+)	
JAN	BDL	3.700	.	3.200	.	3.600
MAR	BDL	3.700	.	5.100	.	5.800
APR	BDL	10.400	.	.	.	11.600
MAY	BDL	4.100	.	3.700	.	3.500
JUN	BDL	8.700	.	7.600	.	7.000
	BDL	5.500	.	.	.	.



TABLE 5

## DRINKING WATER SURVEILLANCE PROGRAM WALLACEBURG WTP 1988

## WATER TREATMENT PLANT

## DISTRIBUTION SYSTEM

	RAW	TREATED	SITE 1		SITE 2	
			STANDING	FREE FLOW	STANDING	FREE FLOW
JUL	BDL	3.100	.	3.900	.	4.500
AUG	.100 <T	6.000	.	6.100	.	5.600
SEP	BDL	5.000	.	.	.	.
OCT	BDL	11.700	.	10.600	.	11.100
NOV	BDL	8.200	.	6.100	.	8.700
DEC	BDL	8.900	.	.	.	.
	BDL	7.100	.	6.300	.	8.500
	BDL	5.500	.	.	.	.
<hr/>						
T-CHLOROETHYLENE (UG/L )			DET'N LIMIT = .050		GUIDELINE = 10.0 (C2)	
JAN	BDL	BDL	.	BDL	.	BDL
MAR	BDL	BDL	.	BDL	.	BDL
APR	BDL	BDL	.	.	.	BDL
MAY	.150 <T	.100 <T	.	.150 <T	.	.100 <T
JUN	BDL	BDL	.	BDL	.	BDL
	BDL	BDL	.	.	.	.
JUL	BDL	BDL	.	BDL	.	BDL
AUG	BDL	BDL	.	BDL	.	BDL
SEP	BDL	BDL	.	.	.	.
OCT	BDL	BDL	.	BDL	.	BDL
NOV	BDL	BDL	.	BDL	.	BDL
DEC	BDL	BDL	.	.	.	.
	.150 <T	BDL	.	BDL	.	BDL
	BDL	BDL	.	.	.	.
<hr/>						
BROMOFORM (UG/L )			DET'N LIMIT = .200		GUIDELINE = 350 (A1+)	
JAN	BDL	BDL	.	.200 <T	.	.200 <T
MAR	BDL	.200 <T	.	.200 <T	.	.200 <T
APR	BDL	1.000 <T	.	.	.	1.200 <T
MAY	BDL	.400 <T	.	.400 <T	.	.400 <T
JUN	BDL	.800 <T	.	.800 <T	.	.600 <T
	BDL	.400 <T	.	.	.	.
JUL	BDL	.200 <T	.	.400 <T	.	.600 <T
AUG	BDL	.800 <T	.	.600 <T	.	.600 <T
SEP	BDL	.600 <T	.	.	.	.
OCT	BDL	2.000	.	2.200	.	2.000 <T
NOV	BDL	1.400 <T	.	1.400 <T	.	1.400 <T
DEC	BDL	2.200	.	.	.	.
	BDL	1.600 <T	.	1.600 <T	.	1.800 <T
	BDL	.800 <T	.	.	.	.
<hr/>						
CHLOROBENZENE (UG/L )			DET'N LIMIT = .100		GUIDELINE = 1510 (D3)	
JAN	.100 <T	BDL	.	BDL	.	BDL
MAR	BDL	BDL	.	BDL	.	BDL
APR	BDL	BDL	.	.	.	BDL
MAY	BDL	BDL	.	BDL	.	BDL
JUN	BDL	BDL	.	BDL	.	BDL

DRINKING WATER SURVEILLANCE PROGRAM WALLACEBURG WTP 1988

### DISTRIBUTION SYSTEM

RAW		TREATED	SITE 1		SITE 2	
			STANDING	FREE FLOW	STANDING	FREE FLOW
JUN	BDL	BDL	.	.	.	.
JUL	BDL	BDL	.	BDL	.	BDL
AUG	BDL	BDL	.	BDL	.	BDL
SEP	BDL	BDL	.	.	.	.
OCT	BDL	BDL	.	BDL	.	BDL
NOV	BDL	BDL	.	BDL	.	BDL
	BDL	BDL	.	.	.	.
DEC	BDL	BDL	.	BDL	.	BDL
	BDL	BDL	.	.	.	.
ETHYLENE DIBROMIDE (UG/L )			DET'N LIMIT = .050		GUIDELINE = 50.0 (G)	
JAN	.050 <T	BDL	.	BDL	.	BDL
MAR	BDL	BDL	.	BDL	.	BDL
APR	BDL	BDL	.	.	.	BDL
MAY	BDL	BDL	.	BDL	.	BDL
JUN	BDL	BDL	.	BDL	.	BDL
	BDL	BDL	.	.	.	.
JUL	BDL	BDL	.	BDL	.	BDL
AUG	BDL	BDL	.	BDL	.	BDL
SEP	BDL	BDL	.	.	.	.
OCT	BDL	BDL	.	BDL	.	BDL
NOV	BDL	BDL	.	BDL	.	BDL
	BDL	BDL	.	.	.	.
DEC	BDL	BDL	.	BDL	.	BDL
	BDL	BDL	.	.	.	.
TOTL TRIHALOMETHANES (UG/L )			DET'N LIMIT = .500		GUIDELINE = 350 (A1)	
JAN	BDL	31.500	.	21.900	.	27.500
MAR	BDL	35.500	.	29.300	.	26.900
APR	BDL	42.200	.	.	.	32.200
MAY	BDL	24.650	.	20.550	.	20.150
JUN	BDL	33.300	.	26.350	.	23.750
	BDL	21.700	.	.	.	.
JUL	BDL	20.900	.	24.500	.	27.700
AUG	BDL	26.750	.	22.150	.	30.500
SEP	BDL	21.700	.	.	.	.
OCT	BDL	35.700	.	25.650	.	30.600
NOV	BDL	29.600	.	18.800	.	24.200
	BDL	25.450	.	.	.	.
DEC	BDL	22.300	.	15.350	.	23.700
	BDL	26.300	.	.	.	.

Table 6

<u>SCAN/PARAMETER</u>	<u>UNIT</u>	<u>DETECTION</u>	<u>LIMIT</u>	<u>GUIDELINE</u>
<b>BACTERIOLOGICAL</b>				
STANDARD PLATE COUNT MEMBRANE FILTRATION	CT/ML	0	500/ML (A1)	
P/A BOTTLE		0	0 (A1*)	
TOTAL COLIFORM MEMBRANE FILTRATION	CT/100ML	0	5/100mL (A1)	
TOTAL COLIFORM BACKGROUND MF	CT/100ML	0	N/A	
<b>CHLOROAROMATICS</b>				
HEXACHLOROBUTADIENE	NG/L	1.000	450.	(D4)
1,2,3-TRICHLOROBENZENE	NG/L	5.000	10000	(I)
1,2,3,4-TETRACHLOROBENZENE	NG/L	1.000	10000	(I)
1,2,3,5-TETRACHLOROBENZENE	NG/L	1.000	10000	(I)
1,2,4-TRICHLOROBENZENE	NG/L	5.000	10000	(I)
1,2,4,5-TETRACHLOROBENZENE	NG/L	1.000	38000	(D4)
1,3,5-TRICHLOROBENZENE	NG/L	5.000	10000	(D4)
HEXACHLOROBENZENE	NG/L	1.0	10.	(C1)
HEXACHLOROETHANE	NG/L	1.000	1900.	(D4)
OCTACHLOROSTYRENE	NG/L	1.000	N/A	
PENTACHLOROBENZENE	NG/L	1.000	74000	(D4)
2,3,6-TRICHLOROTOLUENE	NG/L	5.000	N/A	
2,4,5-TRICHLOROTOLUENE	NG/L	5.000	N/A	
2,6,A-TRICHLOROTOLUENE	NG/L	5.000	N/A	
<b>CHLOROPHENOLS</b>				
2,3,4-TRICHLOROPHENOL	NG/L	50.	N/A	
2,3,4,5-TETRACHLOROPHENOL	NG/L	50.	N/A	
2,3,5,6-TETRACHLOROPHENOL	NG/L	50.	N/A	
2,4,5-TRICHLOROPHENOL	NG/L	50.	2600000	(D4)
2,4,6-TRICHLOROPHENOL	NG/L	50.	5000.	(B1)
PENTACHLOROPHENOL	NG/L	50.	60000.	(B1)
<b>CHEMISTRY (FLD)</b>				
FIELD COMBINED CHLORINE RESIDUAL	MG/L	N/A	N/A	
FIELD FREE CHLORINE RESIDUAL	MG/L	N/A	N/A	
FIELD TOTAL CHLORINE RESIDUAL	MG/L	N/A	N/A	
FIELD PH	DMSNLESS	N/A	6.5-8.5	(A4)
FIELD TEMPERATURE	°C	N/A	<15 °C	(A1)
FIELD TURBIDITY	FTU	N/A	1.0	(A1)
<b>CHEMISTRY (LAB)</b>				
ALKALINITY	MG/L	.200	30-500	(A4)
CALCIUM	MG/L	.100	100.	(F2)
CYANIDE	MG/L	.001	.20	(A1)
CHLORIDE	MG/L	.200	250.	(A3)
COLOUR	TCU	.5	5.0	(A3)
CONDUCTIVITY	UMHO/CM	1.	400.	(F2)
FLUORIDE	MG/L	.01	2.4	(A1)
HARDNESS	MG/L	.50	80-100	(A4)
MAGNESIUM	MG/L	.05	30.	(F2)

SCAN/PARAMETER	UNIT	DETECTION	
		LIMIT	GUIDELINE
NITRITE	MG/L	.001	1.0 (A1)
TOTAL NITRATES	MG/L	.02	10. (A1)
NITROGEN TOTAL KJELDAHL	MG/L	.02	N/A
PH	DMSNLESS	N/A	6.5-8.5 (A4)
PHOSPHORUS FIL REACT	MG/L	.0005	N/A
PHOSPHORUS TOTAL	MG/L	.002	.40 (F2)
TOTAL SOLIDS	MG/L	1.	500. (A3)
TURBIDITY	FTU	.02	1.0 (A1)

#### METALS

ALUMINUM	UG/L	.050	100. (A4)
ANTIMONY	UG/L	.050	146. (D4)
ARSENIC	UG/L	.050	50. (A1)
BARIUM	UG/L	.020	1000. (A1)
BORON	UG/L	.200	5000. (A1)
BERYLLIUM	UG/L	.010	0.20 (H)
CADMIUM	UG/L	.050	5.0 (A1)
COBALT	UG/L	.020	1000. (H)
CHROMIUM	UG/L	.100	50. (A1)
COPPER	UG/L	.100	1000. (A3)
IRON	UG/L	5.0	300. (A3)
MERCURY	UG/L	.01	1.0 (A1)
MANGANESE	UG/L	.050	50. (A3)
MOLYBDENUM	UG/L	.020	500. (H)
NICKEL	UG/L	.100	50. (F3)
LEAD	UG/L	.020	50. (A1)
SELENIUM	UG/L	.200	10. (A1)
SILVER	UG/L	.020	50. (A1)
STRONTIUM	UG/L	.100	2000. (H)
THALLIUM	UG/L	.010	13. (D4)
TITANIUM	UG/L	.100	N/A
URANIUM	UG/L	.020	20. (A2)
VANADIUM	UG/L	.020	100. (H)
ZINC	UG/L	.020	5000. (A3)

#### PHENOLICS

PHENOLICS (UNFILTERED REACTIVE)	UG/L	.2	2.0 (A3)
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#### PESTICIDES & PCB

ALDRIN	NG/L	1.0	700. (A1)
AMETRINE	NG/L	50.	300000. (D3)
ATRAZINE	NG/L	50.	60000. (B3)
ALPHA HEXACHLOROCYCLOHEXANE (BHC)	NG/L	1.0	700. (G)
BETA HEXACHLOROCYCLOHEXANE (BHC)	NG/L	1.0	300. (G)
GAMMA HEXACHLOROCYCLOHEXANE (LINDANE)	NG/L	1.0	4000. (A1)
ALPHA CHLORDANE	NG/L	2.0	7000. (A1)
GAMMA CHLORDANE	NG/L	2.0	7000. (A1)
BLADEx	NG/L	100.	10000. (B3)
DIELDRIN	NG/L	2.0	700. (A1)
METHOXYCHLOR	NG/L	5.0	100000. (A1)
ENDOSULFAN 1 (THIODAN I)	NG/L	2.0	74000. (D4)
ENDOSULFAN 2 (THIODAN II)	NG/L	4.0	74000. (D4)
ENDRIN	NG/L	4.0	200. (A1)
ENDOSULFAN SULPHATE (THIODAN SULPHATE)	NG/L	4.0	N/A
HEPTACHLOR EPOXIDE	NG/L	1.0	3000. (A1)

<u>SCAN/PARAMETER</u>	<u>DETECTION</u>		<u>GUIDELINE</u>
	<u>UNIT</u>	<u>LIMIT</u>	
HEPTACHLOR	NG/L	1.0	3000. (A1)
METOLACHLOR	NG/L	500.	50000. (B3)
MIREX	NG/L	5.0	N/A
OXYCHLORDANE	NG/L	2.0	N/A
O, P-DDT	NG/L	5.0	30000. (A1)
PCB	NG/L	20.0	3000. (A2)
O, P-DDD	NG/L	5.0	N/A
PPDDE	NG/L	1.0	30000. (A1)
PPDDT	NG/L	5.0	30000. (A1)
ATRATONE	NG/L	50.	N/A
ALACHLOR	NG/L	500.	35000. (D2)
PROMETONE	NG/L	50.	52500. (D3)
PROPAZINE	NG/L	50.	16000. (D2)
PROMETRYNE	NG/L	50.	1000. (B3)
SENCOR (METRIBUZIN)	NG/L	100.	80000. (B2)
SIMAZINE	NG/L	50.	10000. (B3)

#### POLYAROMATIC HYDROCARBONS

PHENANTHRENE	NG/L	10.0	N/A	
ANTHRACENE	NG/L	1.0	N/A	
FLUORANTHENE	NG/L	20.0	42000.	(D4)
PYRENE	NG/L	20.0	N/A	
BENZO(A)ANTHRACENE	NG/L	20.0	N/A	
CHRYSENE	NG/L	50.0	N/A	
DIMETHYL BENZO(A)ANTHRACENE	NG/L	5.0	N/A	
BENZO(E)PYRENE	NG/L	50.0	N/A	
BENZO(B)FLUORANTHENE	NG/L	10.0	N/A	
PERYLENE	NG/L	10.0	N/A	
BENZO(K)FLUORANTHENE	NG/L	1.0	N/A	
BENZO(A)PYRENE	NG/L	5.0	10.	(B1)
BENZO(G, H, I)PERYLENE	NG/L	20.0	N/A	
DIBENZO(A, H)ANTHRACENE	NG/L	10.0	N/A	
INDENO(1, 2, 3-C, D)PYRENE	NG/L	20.0	N/A	
BENZO(B)CHRYSENE	NG/L	2.0	N/A	
CORONENE	NG/L	10.0	N/A	

#### SPECIFIC PESTICIDES

TOXAPHENE	NG/L	N/A	5000.	(A1)
2, 4, 5-TRICHLOROBUTYRIC ACID (2, 4, 5-T)	NG/L	50.	280000.	(B1)
2, 4-DICHLOROBUTYRIC ACID (2, 4-D)	NG/L	100.	100000.	(A1)
2, 4-DICHLOROPHENOXYBUTYRIC ACID	NG/L	200.	18000.	(B3)
2, 4-D PROPIONIC ACID	NG/L	100.	N/A	
DICAMBA	NG/L	100.	87000.	(B3)
PICHLORAM	NG/L	100.	2450000.	(D3)
SILVEX (2, 4, 5-TP)	NG/L	50.	10000.	(A1)
DIAZINON	NG/L	20.	14000.	(A1)
DICHLOROVOS	NG/L	20.	N/A	
DURSBAN	NG/L	20.	N/A	
ETHION	NG/L	20.	35000.	(G)
GUTHION	NG/L	N/A	N/A	
MALATHION	NG/L	20.	160000.	(G)
MEVINPHOS	NG/L	20.	N/A	
METHYL PARATHION	NG/L	50.	7000.	(B3)
METHYLTRITHION	NG/L	20.	N/A	
PARATHION	NG/L	20.	35000.	(B1)

<u>SCAN/PARAMETER</u>	<u>DETECTION</u>		
	<u>UNIT</u>	<u>LIMIT</u>	<u>GUIDELINE</u>
PHORATE (THIMET)	NG/L	20.	35. (D2)
RELDAN	NG/L	20.	N/A
RONNEL	NG/L	20.	N/A
AMINOCARB	NG/L	N/A	N/A
BENONYL	NG/L	N/A	N/A
BUX (METALKAMATE)	NG/L	2000.	N/A
CARBOFURAN	NG/L	2000.	18000. (D3)
CICP (CHLORPROPHAM)	NG/L	2000.	350000. (G)
DIALATE	NG/L	2000.	30000. (H)
EPTAM	NG/L	2000.	N/A
IPC	NG/L	2000.	N/A
PROPOXUR (BAYGON)	NG/L	2000.	90000. (G)
SEVIN (CARBARYL)	NG/L	200.	70000. (A1)
SUTAN (BUTYLATE)	NG/L	2000.	245000. (D3)

#### VOLATILES

BENZENE	UG/L	.050	5.0 (B1)
TOLUENE	UG/L	.050	24.0 (B4)
ETHYLBENZENE	UG/L	.050	2.4 (B4)
PARA-XYLENE	UG/L	.100	300. (B4)
META-XYLENE	UG/L	.100	300. (B4)
ORTHO-XYLENE	UG/L	.050	300. (B4)
1,1-DICHLOROETHYLENE	UG/L	.100	7.0 (D1)
ETHYLENE DIBROMIDE	UG/L	.05	50. (G)
METHYLENE CHLORIDE	UG/L	.500	1750. (D3)
TRANS-1,2-DICHLOROETHYLENE	UG/L	.100	350. (D3)
1,1-DICHLOROETHANE	UG/L	.100	N/A
CHLOROFORM	UG/L	.100	350. (A1+)
1,1,1-TRICHLOROETHANE	UG/L	.020	200. (D1)
1,2-DICHLOROETHANE	UG/L	.050	5.0 (D1)
CARBON TETRACHLORIDE	UG/L	.200	5.0 (D1)
1,2-DICHLOROPROPANE	UG/L	.050	10.0 (G)
TRICHLOROETHYLENE	UG/L	.100	5.0 (D1)
DICHLOROBROMOMETHANE	UG/L	.050	350. (A1+)
1,1,2-TRICHLOROETHANE	UG/L	.050	.60 (D4)
CHLORODIBROMOMETHANE	UG/L	.100	350. (A1+)
TETRACHLOROETHYLENE	UG/L	.050	10.0 (C2)
BROMOFORM	UG/L	.200	350. (A1+)
1,1,2,2-TETRACHLOROETHANE	UG/L	.050	0.17 (D4)
CHLOROBENZENE	UG/L	.100	1510. (D3)
1,4-DICHLOROBENZENE	UG/L	.100	5.0 (B1)
1,3-DICHLOROBENZENE	UG/L	.100	130. (G)
1,2-DICHLOROBENZENE	UG/L	.050	200. (B1)
TRIFLUOROCHLOROTOLUENE	UG/L	.100	N/A
TOTAL TRIHALOMETHANES	UG/L	.500	350. (A1)
STYRENE	UG/L	.05	46.5 (D2)

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